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HARMONY SIMPLIFIED

FRANCIS L. YORK



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A PRACTICAL INTRODUCTION
TO COMPOSITION

HARMONY SIMPLIFIED

BY

FRANCIS L. YORK, M. A.

REVISED AND ENLARGED EDITION

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TO MY FRIEND,
FREDERIC H. PEASE,
MICHIGAN STATE NORMAL COLLEGE,
THIS LITTLE BOOK IS RESPECTFULLY
DEDICATED.

INTRODUCTORY.

IN the following pages I shall endeavor to give, in the simplest possible form, an outline of the principles of Harmony. I shall make no attempt to give details or to deal with the subject exhaustively, but I shall present all the tone combinations found in music, and give sufficient explanations of their use to enable the student to recognize them in the works of others and use them correctly in his own. The rules given are derived entirely from the analysis of the works of the great composers, and are followed by them in the great majority of cases. It must be remembered that the canons of art are not moral laws, but simply state what is expedient in general. Violations of the rules—which occur frequently in the best compositions—do not concern us. Irregularities and exceptions do not come within the scope of this work. It will therefore be necessary to leave untouched many interesting and instructive points, but it is hoped that by omitting all detail the student will gain a clearer insight into the essentials of musical composition. A sufficient knowledge of piano playing to enable the student to play an ordinary hymn-tune is presupposed.

This work, in its inception, appeared in 1895 in serial form in one of the musical periodicals. The demand for it was so great, that it became necessary to gather the chapters into a book form, and the great success of the latter, together with the desirability of amplification made clear by its use in the hands of teachers, led to the present revised and enlarged edition.

FRANCIS L. YORK.

DETROIT, *August, 1900.*

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HARMONY SIMPLIFIED.

CHAPTER I.

Definitions. The Tonic and Dominant Chords.

Harmony is the *science* of tone combinations and the *art* of using such combinations.

A **chord** is a combination of tones that gives the hearer an impression of **unity** and **completeness**. It is not necessary that the tones of a chord be sounded together; they may appear successively, as the sixteenth notes in Figure 1, *a*, forming what is known as a **broken chord**. The combinations given in Figure 1, *b* and *c*, are not chords. Chords are formed by **building up thirds**; as C, E, G, or G, B, D, F, Figure 1, *d*, *e*. Chords of three (different) tones are called **triads**.

The figure consists of five musical staves labeled *a* through *e*. Staff *a* shows a treble clef and bass clef staff with sixteenth-note patterns. Staff *b* shows a treble clef staff with two notes per measure. Staff *c* shows a treble clef staff with two notes per measure. Staff *d* shows a treble clef staff with three notes per measure, labeled '3d.' above each group. Staff *e* shows a treble clef staff with three notes per measure, labeled '3d.' above each group. A brace on the left groups staves *a*, *b*, and *c*, with the label 'Chords.' below them. Another brace on the left groups staves *d* and *e*, with the label 'Incomplete.' below *d* and 'Lacks Unity.' below *c*. The label 'Triad.' is centered under staff *d*.

Chords are numbered by the **Roman numerals** corresponding to the degree of the scale on which they are based: thus the chord on the first degree of the scale, Doh, Me, Soh, is num-

bered I; on the fifth of the scale, Soh, Te, Ray, is numbered V. The I is called the **tonic chord**; the V is called the **dominant chord**.

Each chord has a character of its own which is derived largely from the character of the tone on which it is based (the **root**), and partly from the character of its other tones (the third and the fifth above the root). The character of each tone is as follows: Doh, firm, tone of rest, home tone. Ray, aspiring, expectant. Me, plaintive, quiet. Fah, solemn, desolate. Soh, bold, bright. Lah, sorrowful. Te, piercing, pressing upward.*

The most important chords are the I and the V. The I (formed on Doh) is the chord toward which all the chords tend, and in which they all finally come to rest. The V (formed on Soh) *dominates* the key; it demands that the I follow immediately.

In the case of each chord notice the effect of the component tones. The I, composed of Doh, Me, and Soh, is the chord of rest (Doh), of quiet (Me), and yet it is a bright chord (Soh). The V, composed of Soh, Te, and Ray is bold (Soh), expectant (Ray), and restless (Te); the effect of the chord depends somewhat on the tone in the highest part. See Figure 2, a, b.

Each chord, except the I, has a more or less strong tendency to move to some special one of the other chords—usually to that chord whose root is five tones lower. As the V to the I, Figure 2, c.

Root. Root.

* For illustrations of the use that composers make of these characteristics, see Appendix, p. ~~114~~ 114

As composition is based on **four-voiced** (four-part) writing, our exercises will all be written as if for four singers, soprano, alto, tenor, and bass. As most chords contain but three (different) tones, one tone of the chord must appear in two voices at once; that is, that tone is **doubled**.

Rule 1.—In doubling, the best tone is the root, the next best is the fifth, and the poorest is the third.* Figure 3, *a*. In the first chord the soprano and the bass each have C, thus doubling the root. The third chord has the fifth, G, doubled by the tenor and the soprano. The last six chords all contain the doubled third, and the effect is much less pleasant. See also Figure 46, *a*.

a.

3. { Good. Good. Less good but correct. ?? ?? ?? Bad. Bad. Bad.

b.

When the three upper voices, soprano, alto, and tenor, are within an octave, the harmony is said to be **close**, or the chords are said to be in **close position**. All the chords in Figure 3, *b*, are in close position. When there is a tone of the chord omitted from between two of the upper parts, the chord is said to be in **open position**. In Figure 3, *a*, the first chord is in open position, because a G might have been placed between the soprano and the alto, bringing the three tones within an octave. All the chords in Figure 3, *a*, except one (which?) are in open position.

* Still the third *may* be doubled, if by so doing a decidedly better leading of the parts is secured.

See also Figure 13, page 10, in which most of the chords are in close position.

For the present all exercises are to be written in the key of C.

Exercise.

First. — Write I and V chords in various forms, doubling the tones according to Rule 1, and using the close position.

Second. — Write as before, using only the open position. The bass must in all cases have the root, and every chord should have underneath it its proper numeral.

Third. — Have some friend play the chords in the exercises thus written, and, without looking, name each chord as it is played.

In the following chant by Tallis (transposed) all the chords but one are I or V.

T. TALLIS.

4.

The following (transposed) from Mendelssohn's "Song without Words," No. 41, is made entirely of these two chords.

MENDELSSOHN.

5.

Mark the I and V chords in the following.

KUHLAU.

6.

Part a. This section consists of two staves. The top staff is in common time with a key signature of one sharp (F#). It features a basso continuo line with a cello-like part and a harmonic bass line. The bottom staff is in common time with a key signature of one sharp (F#). It shows a treble clef, a bass clef, and a common time signature. The music consists of eighth-note chords.

CLEMENTI.

Part b. This section consists of two staves. The top staff is in common time with a key signature of one sharp (F#). It features a basso continuo line with a cello-like part and a harmonic bass line. The bottom staff is in common time with a key signature of one sharp (F#). It shows a treble clef, a bass clef, and a common time signature. The music consists of eighth-note chords.

CHAPTER II.

Movement of Voices. The Sub-Dominant Chord. Normal Progression.

In writing music there are two most important things to consider. First, the **progression** or **movement** of each chord as a **whole**, and, second, the movement of **each tone** in the chord. In other words, we must examine our work **perpendicularly** for harmony, and **horizontally** for melody.

Rule 2. When two different chords (as I and V) follow one another directly and contain a tone that is common to each (as Soh in the V and I), this common tone should remain in the same voice or part. Figure 7, *a* and *b*.

Rule 3. Each tone should progress to the nearest tone possible. Figure 7, *a* and *b*.

7.

a. *b.*

Good. Good. Bad. Good. ? Good.

Observance of these two rules gives smoothness to a composition and avoids the jerky effect produced by voices skipping about.

Rule 4. Two voices should not make the same progression when they are either a fifth or an octave apart. Such a progression is called **parallel fifths** or **octaves**.* Figure 8, *a*.

* Parallel octaves do not seriously offend the ear, but if two voices move in octaves the result is that we really drop out one voice and are writing in three parts, since one part loses its independence and simply doubles another part at

Rule 5.—The seventh of the scale, Te (also called the leading tone), must move upward to the eighth, Doh, if the following chord contains Doh. Figure 8, *b*. It is the character of Te to demand Doh as the following tone, and this demand should be satisfied, no matter in which voice Te may be.*

8.

a.

b.

Bad. 5 Bad. 5 Bad. Good. Bad. ? Good.

In distributing the tones of a chord among the four voices, keep the voices as nearly equidistant as possible. No two adjacent parts (except the tenor and bass) should be over an octave apart. The first two chords, Figure 9, *a*, are well arranged, the next two are badly distributed. The tenor and bass may be any reasonable distance apart, Figure 9, *a*, the fifth chord.

The root may be trebled, that is, may appear in three parts at once (as at Figure 9, *b*), the fifth being then omitted. The third must not be omitted. Figure 9, *b*. The third must be present or the chord lacks the necessary element of completeness; see definition of chord, also Figure 1, *b*.

the distance of an octave. Parallel fifths sound very badly. Let the student play the following well-known melody with the second voice a fifth lower, as written, and he will not care to introduce such effects into his compositions.



* Te is not infrequently found moving down to Soh, when it is in an inner voice and the bass moves in contrary motion.

9. { a. b.

Good. Good. Bad. Bad. Good. Good. Bad. Bad.

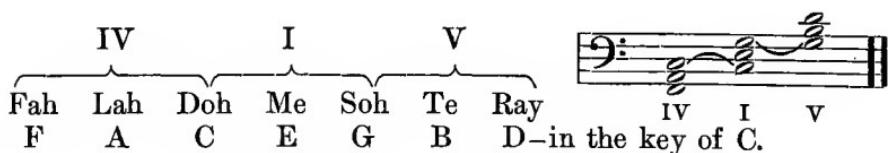
The chord next in importance is the IV, called the **sub-dominant** (i. e., under-dominant), formed on Fah the fifth below Doh, just as the dominant is formed on Soh the fifth above Doh. The IV contains no tone found in the V, hence it contrasts strongly with it. Its character is solemn (Fah), restful (Doh), and inclined to sadness (Lah). Compare the "Amen Close" in church music. Figure 10.

10. {

A - men. A - men. A men.

IV I V

The three chords, I, V, IV, contain all the tones of the scale; two of the tones, Doh and Soh, appearing in two chords, as shown in the following.



We have said that a chord usually progresses to a chord whose root is a perfect fifth below. This is called the **normal progression**. The IV cannot make this progression, as the per-

fect fifth below its root does not lie in the key—as we shall learn in the next chapter. But as all chords have a tendency towards the I, the IV goes to the I either directly or first to the V, and then to the I.

Rule 6.—The V must not go to the IV. Try it and see how badly it sounds.

11. {

Good. Good. Good. Bad.

IV IV IV I IV I IV V I V IV

The student should play the chords in Figure 11, noticing the effect of the I, V, and IV chords. He should then at the piano discover for himself other distributions of these chords, naming them as he plays. Figure 12 shows the use of these chords.

HÄNDEL. "Samson."

12. {

V I V V V I V I V I

I IV I IV I I V

The following from Chopin's eleventh "Nocturne" shows what can be done by a master with the small material that we have already studied.

F. CHOPIN, op. 37, No. 1.

13.

Let the student first name these chords from the paper. Afterward the teacher should play them at the piano and ask the student to name as many of the chords as he can by the sound,—he should know all the chords but the two marked with a cross.

Exercise.

First.—Write two or more exercises in the key of C using the following chords, observing all the rules thus far given : I, V, V, I, V, I, IV, I, IV, V, I. Write in common time, all half notes but the last which is a whole note. Figure 14 shows some things to be imitated and some things to be avoided. From *a* to *b* no error. At *b* parallel octaves. At *c* the third is omitted: *c* to *d* parallel fifths (between alto and bass). At *f* Te does not go to Doh.

14.

Second.—Let the student discover for himself the errors in the following and write out the example in corrected form. There are at least fifteen violations of the rules so far given.

15.

Third.—Mark the I, V, and IV chords in the following, Figure 16. The notes in parenthesis do not belong to the harmony.

a.

16.

b.

Fourth.—The melody in Figure 17 is to be harmonized with the following chords: I, IV, V, I, I, V, I, I, IV, V, I.

17.

CHAPTER III.

Intervals.

An **interval** is the **difference in pitch** between two tones. If the tones are sounded together the interval is **harmonic**; if sounded in succession the interval is **melodic**. Figure 18.

Harmonic.

18. 

Sixth. Sixth. Fifth. Third. Third. Fourth. Second. Seventh.

Melodic.



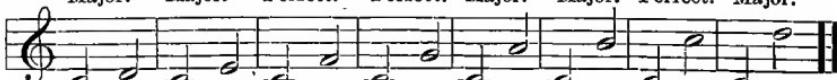
Sixth. Sixth. Fifth. Third. Third. Fourth. Second. Seventh.

In reckoning intervals **count all the letters** contained in the interval. Thus from Doh to Me, as C to E, includes the three letters, C, D, E. So the interval is a third, though we pass over only a single tone, Ray or D. From C to A is six letters C, D, E, F, G, A, hence is a sixth.

Intervals are always reckoned upward unless the contrary is distinctly stated; by a third from C we always mean E the third above.

If we reckon intervals from the first tone of a scale, as C, they will all be **major intervals**, except the fourth, fifth, and octave, which are usually called **perfect**. The intervals formed on the scale of C, then, will be,

Major. Major. Perfect. Perfect. Major. Major. Perfect. Major.

19. 

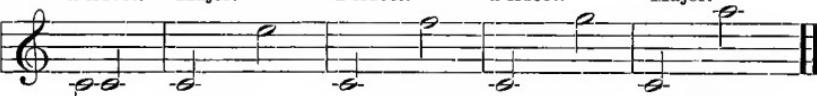
Second. Third. Fourth. Fifth. Sixth. Seventh. Octave. Ninth.

When two tones stand on the same degree there is really no

interval formed by them, but it is customary to call them a **prime** or **unison**, and classify them as forming a perfect interval.

The intervals are reckoned as far as the ninth, although that is but the repetition of the second at the distance of an octave. The wider intervals are usually* reckoned without regard to the octave; thus the tenth is counted as a third, the eleventh as a fourth, the twelfth as a fifth. Figure 20.

Perfect. Major. Perfect. Perfect. Major.

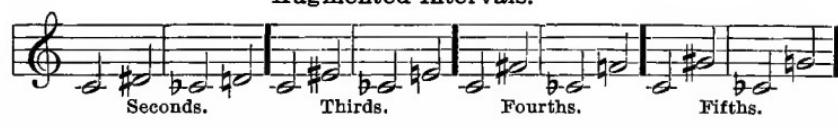
20. 

Unison or Tenth or Eleventh or Twelfth or Thirteenth or
Prime. Third. Fourth. Fifth. Sixth.

The intervals so far studied are all formed within the key, using the keynote as a basis. They are, then, the natural or **normal intervals**. From these, other kinds of intervals may be formed:

First.— If we increase the size of any normal interval by a half step, it becomes an **augmented interval**. This may be done in either of two ways: by raising the upper tone or by depressing the lower tone. If we take Figure 19, and sharp the second tone or flat the first tone in each measure, the intervals produced will be all augmented. Figure 21.

Augmented Intervals.

21. 

Seconds. Thirds. Fourths. Fifths.
Sixths. Sevenths. Octaves. Ninths.

Second.— If the major intervals are made a half step smaller they become **minor**. It is only from major intervals that minor intervals can be made, never from perfect intervals. Figure 22.

* Not always. See Chapter XIII.

Minor Intervals.

22. A musical staff in G major with four measures. The first measure shows an interval of a second between G and A. The second measure shows an interval of a third between G and B-flat. The third measure shows an interval of a sixth between G and E. The fourth measure shows an interval of a seventh between G and F-sharp.

Seconds. Thirds. Sixths. Sevenths.

Third.—If the perfect or the minor intervals are contracted by a half step they become **diminished**. In Figure 23, the diminished intervals are formed from the minor intervals of Figure 22, by raising the lower tone or by lowering the upper tone a half step.

Diminished Intervals.

23. A musical staff in G major with four measures. The first measure shows a diminished second between G and A-sharp. The second measure shows a diminished third between G and B-flat. The third measure shows a diminished sixth between G and E-sharp. The fourth measure shows a diminished seventh between G and F-sharp.

Second. Thirds. Sixth. Seventh.

When we have C \sharp —D \flat , although there is theoretically an interval (that is, a difference in pitch), practically there is none, and the two letters are nothing more than two ways of writing the same pitch: such an interval is called **enharmonic**.

The diminished intervals in Figure 24 are all formed from perfect intervals.

Diminished Intervals.

24. A musical staff in G major with three measures. The first measure shows a diminished fourth between G and C-sharp. The second measure shows a diminished fifth between G and D-sharp. The third measure shows a diminished octave between G and G-sharp.

Fourths. Fifths. Octaves.

To determine whether an interval is major, minor, augmented, or diminished, we proceed as follows. Consider the lower note of the interval to be the key note of a scale. If the upper note lies in the scale of this key, the interval is normal, that is, either major or perfect. If it is a half step larger it is augmented. If a half step smaller than a major it is minor. If a half step smaller than a minor or a perfect interval, it is diminished. For example, we will find the names of the following intervals.

25. A musical staff in G major with seven measures. The notes are numbered 1 through 7 below the staff. Measure 1: G. Measure 2: B-flat. Measure 3: E. Measure 4: D. Measure 5: B-flat. Measure 6: E-sharp. Measure 7: G-sharp.

First count the letters contained in each interval. The first contains six letters, D, E, F, G, A, B \flat , and so is a sixth of some kind. Those following in Figure 25 are respectively sixth, fourth, seventh, fourth, fourth, and fifth. Now write out each interval in the key of the lower tone (Figure 26). This gives us the normal intervals corresponding to the given intervals of Figure 25.

26.

Key of D. Key of E. Key of F. Key of G. Key of A. Key of B.

By comparing, we find the first interval (Figure 25) to be a half step less than the normal major sixth (Figure 26), and hence is a minor sixth. The second is a minor sixth for a similar reason; the third is an augmented fourth, the fourth a minor seventh, the fifth a perfect fourth, the sixth an augmented fourth, and the seventh a diminished fifth. Only one augmented and one diminished interval can be formed within the scale: Fah to Te, an augmented fourth, and Te to Fah, a diminished fifth. Figure 25, 3 and 7.

It is important to remember that an interval is reckoned by the letters composing it, and not by its appearance on the keyboard. Thus from C to E is a third, because E is the third tone in the scale of C, even though we sharp the C and flatten the E. So, C \sharp to E \flat is a diminished third, while from C \sharp to D \sharp is a major second, though the two intervals are the same on the keyboard.

Exercise.

First.—Write out on every tone of the scale of C all the major, minor, perfect, augmented, and diminished intervals.

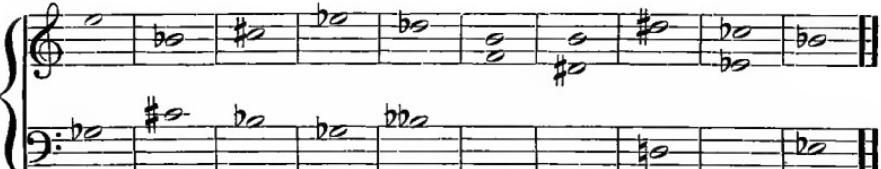
Second.—Analyse the following from Chopin (Figure 27), reckoning upward from the lower note, and marking the intervals thus:—the major with a capital M, the minor with a small m, the perfect with P, the augmented with A, and the diminished with D.

27. 

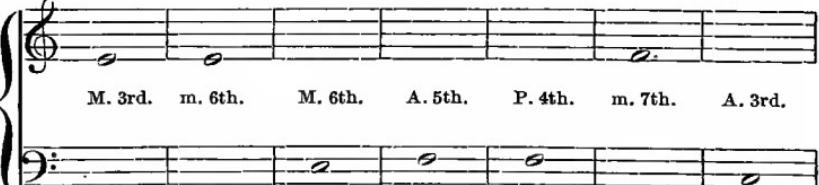
P. 5th. P. 4th. A. 4th. etc.

Third.—Mark in the same way the following.

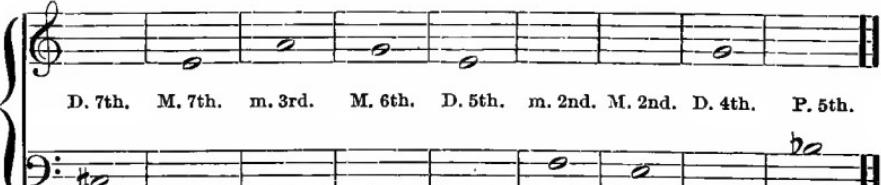
28. 



Fourth.—Write the intervals indicated in the following.

29. 

M. 3rd. m. 6th. M. 6th. A. 5th. P. 4th. m. 7th. A. 3rd.



D. 7th. M. 7th. m. 3rd. M. 6th. D. 5th. m. 2nd. M. 2nd. D. 4th. P. 5th.

Fifth.—The teacher should require the pupil to tell, by the sound only, various intervals when played on the piano or when sung by two voices, or when played on the violin. A few minutes should be spent at every lesson in training the ear in this way, and the practice should be continued throughout at least one half the course.*

Sixth.—Add the alto and tenor parts (the inner parts) to the soprano and bass given in the following.

30.

* It is hoped that the student is already familiar with Jean Parkman Brown's excellent little work called "Intervals, Chords, and Ear-training." If not, a careful reading of it and the practice of the exercises given in it will be of great advantage.

CHAPTER IV.

Cadences. Motion of Parts. The a, b, and c Positions.

A **cadence** is a progression of chords that gives the hearer a more or less complete feeling of **close**. The most complete cadence is the V to the I, called the **authentic cadence**. It is **perfect** when both chords have their roots in the bass, and the highest voice ends on Doh. Figure 31, *a*. In any other case it is **imperfect**. [Figure 31, *b*.]

31. {

<i>a.</i>	<i>b.</i>
Perfect.	Perfect.
Imperfect.	Imperfect.
Imperfect.	Imperfect.

The strength of a cadence, that is, whether the feeling of close is strong or not, depends a great deal on its position in the composition.

By **parallel motion** is meant the movement of two voices in the same direction. **Contrary motion** is movement in opposite direction. In **oblique motion** one voice remains stationary and the other moves either up or down.

32. {

<i>a.</i>	<i>b.</i>	<i>c.</i>
Parallel.	Bad.	Contrary.
Oblique.		

Contrary and oblique motion are better than parallel. A large proportion of the mistakes made by young writers comes from a too frequent use of parallel motion. Parallel motion in all the parts at once is especially to be avoided.

When the root is in the bass the chord is **uninverted** or in the **a position**, as I_a, read "tonic a position." Figure 33, *a*. The *a* below the line is usually omitted in writing, and is used only when it is necessary to distinguish between different positions. When any tone other than the root is in the bass, the chord is said to be **inverted** or in a new **position**. When the third of the chord is in the bass, the chord is in the **b position**, or the first inversion, as, I_b, read "tonic b position." Figure 33, *b*. When the fifth is in the bass, the chord is in the **c position**, or the second inversion, as I_c, read "tonic c position." Figure 33, *c*.

33.

a.

b.

c.

I_a I_a I_a I_b V_b IV_b I_c I_c

The only inverted chord that we will use at present is the I_c. This chord is seldom used except at the cadence.

Rule 7.—The I_c must go to the V. Figure 34, *a*.

Rule 8.—The I_c must be used only on the accented part of the measure, and the fifth (not the root) must be doubled. Figure 34, *b*.

34.

a.

Good. Good. Uncommon.

REMARK. It is not always possible to observe Rules 2 and 3. We will hereafter regard them as recommendations rather than as laws.

Exercise.

First.—Write the following succession of chords in the key of C. I, IV, I, V, I, I, V, V, \overline{I} , I, IV, IV, I_c , V, I. Write in duple time.

Second.—Fill in the alto and tenor of the following.

35.

Every exercise when complete should be played over by some person not the writer, and the latter, without seeing either the notes or the keys, should name the chords as they are played.

CHAPTER V.

Dissonances. The Dominant Seventh.

A **dissonance** is a combination of tones that gives the hearer a feeling of **unrest** and a desire that some other combination follow. In Figure 36 the chords marked + are dissonances. **Resolution** is going from dissonance to consonance—from unrest to rest. In Figure 36 the unmarked chords are consonant, the preceding dissonant chords having *resolved* into them.

36.

A dissonance is **prepared** when the dissonant tone is first heard as a consonance. Figure 37, *b*, the tied notes. A dissonance is **unprepared** when the dissonant tone appears *with* the chord. When the dissonance is prepared the effect is smoother, when unprepared it is bolder. Figure 37, *c*. With most dissonances either way may be used.

The **dominant seventh** is the most common dissonant chord. It is formed by adding another third above the dominant triad, thus: Soh, Te, Ray, Fah, or, in the key of C: G, B, D, F. The new tone, being at the distance of a seventh from the root, gives the name to the chord. It is represented by V_7 . Figure 37, *a*, and Figure 36, the first and eighth chords. In the celebrated "Hunting Chorus" from Von Weber's "Der Freischütz" there are twenty-four measures made entirely of I and V_7 chords. Figure 38.

37. { *a.* *b.* *c.*

V₇ Prepared. Unprepared.

38. {

Hunting Chorus. "Der Freischütz."

Rule 9.—The V₇ must progress to the I, Te going to Doh and Fah to Me. Figure 37, *b* and *c*.

Te is sometimes though rarely omitted in the V₇.

On account of its strong tendency to the I, the V₇ usually occurs at the cadence. The restless effect of this chord is produced by the contradictory character of the tones composing it. We have added the solemn and depressing Fah to a chord that is bright, bold, and aspiring. The conflict of these two characters makes the hearer restless until the sharp upward-thrusting Te comes to rest in the peaceful Doh, and the desolate Fah changes to the quiet Me. If the student is inclined to consider this fanciful, let him play this V₇ chord on the piano a few times, leaving it unresolved, and he will at once see how unsatisfying the effect is.

Exercise.

First.—Write the following chord succession. I, I, | V, V, | I, I, | V, | I, I, | IV, IV, | I_c, V₇, | I ||. The perpendicular lines show the measures. Write in duple time. Notice that here the I_c goes to the V₇. This is even more common than the progression

to the V without the seventh, and is a stronger progression. It also makes a smoother progression for the voices, as they can move more by degrees. Figure 39.

39.

instead of

The following from the end of Schubert's "Impromptu," op. 90, No. 1, is made entirely of this progression. Notice how carefully he has doubled the fifth of the I_c , and led Te and Fah properly in the V_7 . Although he has used more than four voices, at the third chord from the end he has omitted the G purposely that we may be sure that the F has gone to E.

The following is the method of writing exercises that the student is advised to use.

First.—Write the given numerals under the lower staff.

Second.—Write the bass notes indicated by the numerals, choosing such positions as will give the best melody. See Figure 41, bass.

Third.—Write in the soprano a note for each bass note, choosing tones belonging to the chord indicated, making the melody as pleasing as possible, using contrary motion to the bass more than parallel motion.

Fourth.—Add alto and tenor, observing the rules for doubling, progression of chords and of voices, and the distribution of voices.

Fifth.—The compass of the parts or voices should be about as follows: Soprano, an octave and a half upwards from middle C. Bass, an octave and a half downwards from middle C. Alto, a fourth lower than the soprano. Tenor, a fourth higher than the bass.

Sixth.—Turn the stems of the notes as in Figure 41.

Seventh.—Figure 41 may be used as a model. The student should also copy the bass and the soprano here given, add his own tenor and alto, and when done compare his work with the model.

41.

I I V V I I V I I IV IV I_c V₇ I

Exercise.

Second.—Harmonize the melody given in Figure 42, using the chords indicated.

42.

V I V₇ I I IV IV I I I V₇ I IV I_c V₇ I

Third.—Add whatever is lacking in Figure 43. In measures six and seven notice how the stems of the notes are turned.

43.

V V I I V

I

The following from Mendelssohn's "Song without Words," No. 28, shows I, I_c , and V_7 chords both in chord form and as broken chords.

44.

I I I I

I_c I_c V_7 I

CHAPTER VI.

The b Position or First Inversion.

The c and d Positions.

Each of the chords so far studied may now be used with the third of the chord instead of the root, in the bass (**b position or first inversion**), but all previous rules must be followed. For example, V_b gives us Te in the bass, and Te must go to Doh, the same as if it were in an upper voice. Figure 45.

45.

I_b I_b IV_b IV_b V_b V_b

Rule 10. — When a chord is in the b position, do not double the third.

The third is the least desirable tone to double, and when the bass gives it prominence it must be omitted in the other parts. See Figure 46, *a*, in which all the chords are either bad or very doubtful. The use of the *b* position gives much greater freedom to the bass, as we may now use any tone of the scale, except Ray, in the bass. Figure 46, *b*, exhibits chords on each tone of the scale except Ray, but of course is not to be regarded as a harmonization of a scale progression in the bass.

46.

a.

I I_b IV V I_c IV_b V_b

b.

I I_b IV V I_c IV_b V_b

Any triad in the *c* position (second inversion), especially when entering on the accented beat of a measure, strives to assert itself as a I_c. That is, **any triad in the c position sounds like a new tonic** in that position, and requires a new dominant to follow, thus going into another key. If the student will play over Figure 47, *a* and *b*, at the second chord in each example he will feel the demand for the chord that carries us into the new key.

47.

a.

b.

Key of C. I V_c Key of G. I_c V₇

Key of C. I IV_c Key of F. I_c V₇

I

We will avoid, then, the use of the V_c and the IV_c, for one would tend to carry us into the key of the dominant and the other into the key of the sub-dominant.

It is, however, possible to use these chords and still remain in the original key. In order to do this we must take the following precautions. **We may use the V_c if it is put on the unaccented part of the measure, when the bass has the progression Doh, Ray, Me, or Me, Ray, Doh—that is, moves by degrees.** This use of the chord though correct is at best a makeshift, and is only to be used in an unimportant place. Figure 48, *a*.

The IV_c may be used with very good effect if we take care to put it on the unaccented part of the measure between two I chords. If this is done the bass is of course stationary. Figure 48, *b*.

48.

a.

b.

I V_c I_b I_b V_c I I IV_c I I IV_e I

Figure 49, the beginning of a well-known hymn-tune by Portogallo, illustrates this.

M. PORTOGALLO.

49.

IV_c IV_c

The Chopin study known as the "Black Key Etude" begins with I, IV_c, I, repeated. Figure 50. As this is written in the key of G flat the I is G flat, and the IV is C flat. In the second measure the G flat is held through by the pedal, and so is the real bass.

50.

8va

f

p *Ped.*

I IV_c I IV_c I

The V_{7c} may be used freely, care being taken that each voice progresses properly. The V_{7b} (the third in the bass) may also be used, as well as the V_{7d} (the seventh in the bass). Figure 51. The V_{7b} must go to the I_a and the V_{7d} must go to the I_b . Why?

Musical score for piano, page 51, measures 1-4. The score consists of two staves. The top staff is in treble clef and the bottom staff is in bass clef. The music is in common time. Measures 1-4 show a repeating harmonic pattern: I_b, V_{7c}, V_{7c}, V_{7b}, V_{7d}, I_b. The bass staff provides harmonic support with sustained notes and rhythmic patterns.

Figure 52, part of the hymn-tune, "St. Thomas", illustrates some of these chords. Let the student mark them with the numerals and also name them when played.

The following from Beethoven ("Sonata Appassionata") is composed entirely of I and V₇ chords in various positions; being written in D flat, the I is D flat, and the V is A flat.

53.

2

$\begin{matrix} \text{V}_7\text{d} & \text{V}_7\text{c} & \text{V}_7\text{d} & \text{I}_b & \text{I} & \text{V}_7\text{c} & \text{I} & \text{V}_7\text{d} & \text{V}_7\text{c} & \text{V}_7\text{d} \end{matrix}$

I_b I V_{7b} I V_{7d} V_{7c} V_{7d} I_b I V_{7c} I_b

The student should have this played to him and name the chords as they are played, by the sound only.

Exercise.

First. — Supply the parts that are wanting in the following.

54.

V_b V₇

Second. — Harmonize the melody given in Figure 55. The following chords are suggested, but the student should harmonize the melody in several ways, using different chords where practicable.

I, V₇, | I, I_b, | IV, I_b, | V, | I, V₇, | I, IV_c, I, I_b, | I_c, V₇, | I ||

55.

Third. — Harmonize the following bass.

56.

I_c V V_{7c}

CHAPTER VII.

Review.

We have now sufficient musical material to harmonize any tone of the scale in any one of the parts, and in many cases we have a choice of several chords. Below are given all the tones of the scale of C, together with all the possible harmonizations so far studied. The student should make such a table for himself and keep it for reference, adding to it as new material is studied. In this way he can tell at a glance what harmonies are possible for any given tone. Of course, not all the harmonies given as possible are equally desirable. **Usually but one chord will be found suitable for any given place.** When there is a choice, the proper chord will be determined by the chord before and after, by the position in the measure, and by the progression and distribution of the voices.

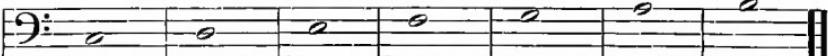
When the note to be harmonized is in the soprano we may use :—

57. 

I _{a, b or c}	V _{a, b or c}	I _{a or c}	IV _{a, b or c}	I _{a, b or c}	IV _{a or c}	V _{a or c}
IV _{a, b or c}	V _{7a, b, c or d}		V _{7a, b or c}	V _{a, b or c}		V _{7a, c or d}
				V _{7a, b, c or d}		

When the note to be harmonized is in the bass we may use :—

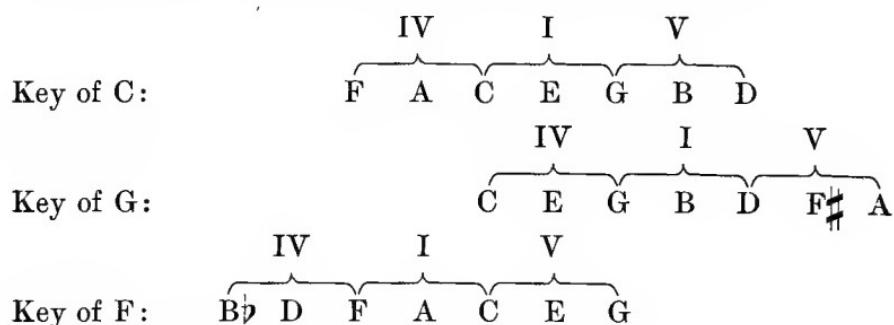
IV _e	V _{7c}		V _{7d}	V ₇		V _{7b}
I	V _c	I _b	IV	I _e	IV _b	V _b

58. 

By this it is seen that we have much greater freedom when the soprano is given than when the bass is given.

It cannot be too strongly impressed on the student that these three chords in their various positions are the framework of all composition. For this reason they are known as the **primary triads**. Other chords which we shall next proceed to study (**secondary triads**) are more or less exceptional in their use: the **I, V, IV, and V₇**, constitute **nine-tenths of the chords in common use**.

So far all our exercises have been in the key of C. When we write in any other key we shall find the chords of the key of C having other names and characters. Thus C, E, G, the I of C becomes the IV of the key of G, and the V of the key of F.



Exercise.

First.—Return to Chapter II. and write one exercise from each chapter to the present in the keys of G, F, and A, and then harmonize with the chords given. Figure 17 becomes:—

In Chapter III. write the various intervals in these three keys. In Chapter IV. write Figure 35 in these three keys and fill in the parts. Do the same with Figure 43 in Chapter V., and with Figure 54 and 55 in Chapter VI.

Second.—Also harmonize the following :

a. Soprano given.



b. Bass given.



In the first fourteen measures of Paderewski's "Minuet à l'Antique" there are no chords that we have not already studied. Let the student analyze these measures, noticing how far our rules have been followed. Figure 61.

Musical score for Figure 61, consisting of three systems of piano music. The score is for two staves: treble clef (soprano) and bass clef (bass). The key signature is one sharp, indicating G major. The time signature is common time (indicated by a '4'). The score consists of three systems of four measures each. The first system starts with a half note in the bass, followed by a quarter note in the treble, then a half note in the bass, then a quarter note in the treble. The second system starts with a half note in the bass, followed by a quarter note in the treble, then a half note in the bass, then a quarter note in the treble. The third system starts with a half note in the bass, followed by a quarter note in the treble, then a half note in the bass, then a quarter note in the treble. The score includes various dynamics and articulations.

CHAPTER VIII.

Minor Chords. The Super-Tonic.

All the chords so far studied are composed of a major third plus a minor third, and are called **major chords**. Now if the first third is minor, and the chord is composed of a minor third plus a major third, the chord is called a **minor chord**, as D, F, A, or A, C, E. Minor chords are represented by the **small Roman numerals**, as II, III, VI. Figure 62. When we hear a minor chord, a doubt arises as to which tone we should regard as the root, the first or the third; for this reason the third in minor chords is frequently doubled instead of the root— even in the *b* position. Figure 63, *a*, the third and ninth chords.

62. 

IV V II VI III
Major Chords.

The most common minor chord is the one formed on Ray; it is represented by II, and is called the **super-tonic**, since it is the chord just above the tonic. The character of the chord, as is shown by the tones of which it is composed, is expectant (Ray), solemn (Fah), and somewhat sorrowful (Lah). The II is used more often in the *b* position than with the root in the bass.

Rule 11.—The II must progress to the V, V₇, or I_c.

The progression of the II is the normal progression, that is, to the V, but as the I_c demands the V strongly, the ear accepts the I_c as being only a delaying of the progression for one chord. As the V₇ contains Fah, the third of the II, the progression to the V₇ is smoother than to the V alone. Compare the progression of the I_c to the V₇. Figure 39.

The following illustrates the use of the II. The notes in parentheses, as we shall learn later, do not belong to the harmony at all.

“America.”

63. 

b.

BEETHOVEN, op. 14, No. 2.



SCHUBERT. “Waltz,” op. 9.



Exercise.

First.—Harmonize the soprano given in Figure 64.

Second.—Write a new harmonization of the same melody, after having transposed it into the key of A.

Third.—Take the bass thus formed in the key of A, write a new soprano to it, and add the tenor and alto.

64. A musical staff in G major (C clef) with a common time signature. It consists of eight measures. The bass notes and their corresponding Roman numerals are: V₇, I, I, V, I, I, IV_c, I, V_c, I_b.

A continuation of the musical staff from exercise 64. It consists of six measures. The bass notes and their corresponding Roman numerals are: V, V, V_{7d}, I_b, V_c, I, V_b, V_{7b}, I, II_b, I_a, V, V, V₇, I.

Fourth.—Also harmonize the bass given in Figure 65.

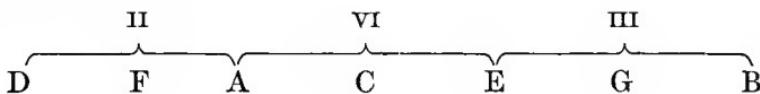
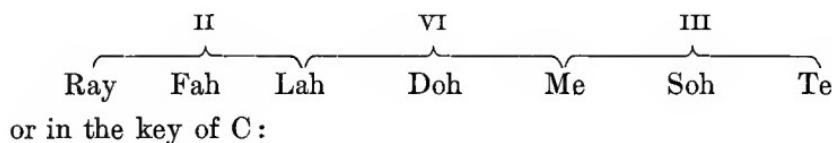
65. A musical staff in G major (C clef) with a common time signature. It consists of eight measures. The bass notes and their corresponding Roman numerals are: V, V, V_{7d}, I_b, V_c, I, V_b, V_{7b}, I, II_b, I_a, V, V, V₇, I.

Let the student constantly be on the lookout for the chords he has learned, trying to recognize them in the music he plays or hears. He should have his own and his fellow students' exercises played to him, and name the chords by the sound.

CHAPTER IX.

The Mediant and Sub-Mediant Chords.

As there are **three major chords** in each key, one based on the key-note, the others based on the fifth above and on the fifth below the key-note (I, V, IV), so there are **three minor chords** which stand in the same relation to each other. If we take the sixth degree, Lah, as a starting point, we find that the chord based on it is a minor chord (Lah, Doh, Me), and the chords based on the fifth above (Me) and on the fifth below (Ray) are each minor chords. This relation, if emphasized, gives rise to the minor mode, which we shall treat later.



As in the case of the three major chords, these three chords contain all the tones of the scale, two tones (A and E) occurring in two chords. Thus we have now two possible ways of harmonizing any tone of the scale, and three possible ways of harmonizing the four tones, Doh, Soh, Lah, and Me. This does not include the use of the **V₇**, or of any inversion.

The chord on the sixth degree is called the **sub-mediant**—sub meaning “below” and mediant meaning “half-way,” because this chord is half-way between the roots of the tonic and the sub-dominant. It is represented by **vi**. The character of the chord is that of sadness (Lah), the plaintive Me intensifying and the restful Doh taking nothing from the sorrowfulness of the root Lah.

This chord is much used. It occurs sometimes in place of the I, and sometimes in place of the IV, as it contains two tones of each of these chords — Doh and Me of the I, and Lah and Doh of the IV. Figure 66, b. Its progression is the normal one, that is, to the II. Figure 66, c.

66.

a. b. c.

II VI III I VI IV

VI II_b I_c V₇ I

The chord on the fifth below Lah, the II, has already been spoken of. The chord on the fifth above Lah is called the **mediant** because it is halfway (mid-way) between the I and the V. It is the least useful of all the chords. This is due to two causes: First, the character of the chord; Second, its remoteness from the I. The character of the chord should be quiet or plaintive, being based on Me, but the restlessness of Te and the boldness of Soh do not combine well with this. So the chord has an uncertain, vacillating character that causes it to be of little use where progress is desired. By remoteness from the I is meant that if we follow the normal progression of the chords, it will take four progressions to reach the I. Thus: III, VI, II, V, I. The relationship between the mediant and the I is not readily grasped, and so the chord is not much used. As just indicated, the progression of this chord is the normal one, to the VI. Notice that the farther we go from the I the weaker the progression of the chord; the desire of the III for the VI, and of the VI for the II is much less than that of the V or V₇ for the I, or of the II for the V. The complete chain of chords. III, VI, II (I_c), V, or V₇, I, gives the strongest possible progression.

The following illustrates the use of the three chords II, III, and VI.

GUilmant. "Second Sonata for Organ."

Figures 68 and 69 also contain examples of these chords. Let the student analyse them, marking all the chords in each.

Old Chant.

Old Chant.

68.

WAGNER. Bridal Chorus from "Lohengrin."

A musical score for piano, featuring two staves. The top staff is in treble clef, B-flat key signature, and common time (indicated by '2'). The bottom staff is in bass clef, B-flat key signature, and common time. Measures 1 through 10 are shown, with measure numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 labeled below the bass staff. The music consists of eighth-note chords and sustained notes.

A very beautiful use of the mediant chord is found in Chopin's "Polonaise," op. 26, No. 2. Here it gives a stopping, hesitating effect—it suggests being plucked back by the clothing just as one is about to take a forward step. Figure 70.

A musical score for piano, page 70, featuring two staves. The top staff uses a treble clef and a key signature of four sharps, indicating G major. The bottom staff uses a bass clef and a key signature of three sharps, indicating D major. The music consists of three measures. Measure 1 starts with a forte dynamic and includes a measure repeat sign. Measure 2 begins with a half note followed by eighth-note pairs. Measure 3 concludes with a half note followed by eighth-note pairs. Below the bass staff, Roman numerals V₇, I, and III are written under the corresponding measures.

Exercise.

First.—Harmonize the following chord progression. Write in duple time. I, V_b, | I, VI, | II_b, V, | V_{7d}, I_b, | I, IV, | I_b, III, | VI, II_b, | I_c, V₇, | V₇, | I. ||

Figure 71 may be used as the soprano part.

71. 

The b position of these minor chords may be used freely, but the c position is very rare and had best be avoided.

72.  I_c

Second.—Fill in the parts wanting in Figure 72. The student has now a sufficient knowledge of chords to analyse any ordinary hymn tune. Let him take the tunes "Old Hundred" and "Webb" and mark all the chords he knows, and also name the chords when played to him.

CHAPTER X.

Cadences. Concealed Fifths and Octaves.

It is not necessary that a cadence give an effect of **complete close**. (See Chapter IV.) Only the **perfect authentic cadence** does this. The weaker cadences are used to divide the composition into rhythmical parts, usually four measures in length. Any progression of chords may be used as a cadence, but certain ones lend themselves more readily than others to such use, and any progression used as a cadence is very greatly affected by its position in the rhythm.

The following are the more important cadences:

a.—V or V_7 , to I, called the **authentic**. Figure 73, *a*. Also the last cadence in the hymn tune “Old Hundred.”

b.—IV to I, called **plagal** or **amen**. Figure 73, *b*. Notice the parallel fifths in the last two measures of Figure 73, *b*. This is not to be imitated.

c.—I to V, called **half cadence to dominant**. Figure 74. Also the second cadence in “Old Hundred.”

d.—I to IV, called **half cadence to sub-dominant**. Figure 75.

e.—V or V_7 , to VI, called **surprise cadence**, or **deceptive cadence**. Figure 77, *a* and *b*.

HUMMEL. “Concerto,” op. 89.
a.

HELLER. “Study,” op. 47, No. 4.
b.

73.

Perfect authentic cadence.

$\text{II}_b \text{ I}_c \text{ V}_7 \text{ I}$

$\text{sf} \quad p$ Plagal.

$\text{IV} \text{ I}$

MENDELSSOHN. "Organ Sonata VI."

I V

SULLIVAN.

I IV

Half cadences (especially to the V) usually occur in the middle of a period of eight or more measures as a contrast to the authentic cadence at the end.

f.—The imperfect authentic cadence (See Chapter IV) is used to avoid a complete close in positions where a tonic cadence is expected. Figure 76.

MENDELSSOHN. "Organ Sonata V."

I V

The surprise cadence is an example of an irregular progression of the V_7 , which will be treated later. It is used in much the same way as the imperfect authentic.

When two voices move in parallel motion from another interval to a fifth or an octave, the progression is called **concealed fifths or octaves**. (Notice the plural name, although there is but one fifth or octave.) Such progressions are not desirable, but are unavoidable at times. Avoid them between outer voices (soprano and bass); when the voices make a skip or otherwise call attention to themselves; or when for any reason the progression is in other respects not as good as is desirable. The following progressions are all bad.

A handwritten musical score for two staves. The top staff is in treble clef and the bottom staff is in bass clef. Both staves have four measures. Measure 1: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 2: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 3: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 4: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 5: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 6: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 7: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 8: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 9: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 10: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 11: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 12: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 13: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 14: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 15: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 16: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 17: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 18: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 19: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines. Measure 20: Treble staff has eighth notes on the first three lines; Bass staff has eighth notes on the first three lines.

Exercise.

First. — Add the parts that are wanting to Figure 79.

Second.—Write a new soprano to the same bass and add parts. Notice that this is composed of two four-measure phrases, the first ending with a half cadence to the V, and the second with a very strong perfect authentic cadence.

79.

Musical score for Exercise 79 in G minor (C major). The top staff shows a melody in G minor (C major) with a bass line below it. The bottom staff shows harmonic progressions: V_7 , I_b , IV , and II_b .

Third.—Add the parts that are wanting to Figure 80. This is composed of four four-measure phrases with the following cadences: first, an imperfect authentic; second, an imperfect half cadence to V; third, surprise cadence; fourth, perfect authentic cadence.

80.

Musical score for Exercise 80 in G major. The top staff shows a melody in G major with a bass line below it. The bottom staff shows harmonic progressions: I , V_{7c} , IV , V_{7c} , V_{7c} , vi , and V_b . The next section starts with II_b , V_b , V_7 , vi , II_b , and II_b .

CHAPTER XI.

The Sub-Tonic or Diminished Chord.

We have now formed triads on each degree of the scale except the seventh, Te. It is not possible to form within the key either a major or a minor chord on this degree, as the interval Te-Fah is composed of two minor thirds. The triad formed here is a **diminished chord**. It is called the **sub-tonic** (below the tonic), and is lettered **vii^o**. The cypher indicates the small or diminished fifth. Although the chord is based on Te, it has no true root. It is not of frequent occurrence in modern four-voiced writing, and when used is generally treated as if it were a **V₇** chord with the root omitted. It progresses to the I. The *b* position is the most common, and the so-called root, Te, is not to be doubled. The reason that Te is not to be doubled is that Te is not the real root; also being the leading tone of the scale with a definite progression, it would, if doubled, bring about parallel octaves. When the fifth, Fah, is doubled, the two Fahs must progress in contrary motion. The progression of the fifth, Doh-Soh, to the diminished fifth, Te-Fah, is allowed, but the reverse progression would be an aggravated case of concealed fifths, and had best be avoided. Figure 81. The diminished fifth is shown by **5th^o**.

81.

Figure 82, a chant by Dupuis, shows the VII^{o} first with the third, and then with the fifth doubled. See also Figure 52, the seventh chord.

T. S. DUPUIS.

82.

VII^{o}_b VII^{o}_b

The character of the chord is what we should expect would be the result of taking the strong steady Soh away from the V_7 , and leaving the contradictory Te and Fah. Although the progression of the chord is strong, the chord itself is weak. Whatever strength it has, it derives from the strong progressive tendency of Te and Fah.

All the chords last studied, that is, the II, VI, III, VII^o, may be used in the b position. The b position is even more common than the a position — especially in the II, III, and VII^o. The c position is very rare in all of them, and even when found should rather be regarded as an accidental combination of tones brought about by the melodic progression of the parts, than as a real chord formation.

Exercise.

First. — Harmonize the bass given in Figure 83.

Second. — Add the tenor and bass to Figure 84.

83.

V_c V_{7d} V_c



84.

$\text{VI}_b \quad \text{V}_7\text{c} \quad \text{V}_7\text{d}$

$\text{III} \quad \text{VI}$

$\text{II}_b \quad \text{V}_7\text{d}$

$\text{I}_b \quad \text{VI} \quad \text{VII}_b^0 \quad \text{V}_7\text{c}$

$\text{V}_6 \quad \text{VI}$

Third.—Add soprano, alto, and bass to the following tenor.
First transpose to the key of D.

85.

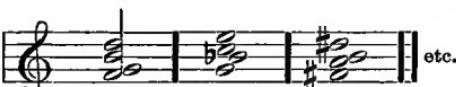
$\text{VI IV} \quad \text{V}_7\text{d}$

$\text{VI III VI I}_b \quad \text{II}$

CHAPTER XII.

The II, III, VI, and VII^o with the Seventh.

The V₇ is the only chord of its kind that is possible in a key; that is, it is the only major chord with minor seventh that can be formed without using tones foreign to the key. So when we hear such a chord we know at once what the key is.

86. 

Key: C. F. E. etc.

But other kinds of seventh chords may be formed on the other six tones of the scale. The most common of these is the II₇ (**super-tonic seventh**), formed by adding the seventh, Doh, to the II chord. Figure 87. This is of course a minor chord with a minor seventh. Its progression is the same as that of the II chord, that is, to the V, V₇, or I_c, but it demands this progression even more strongly than does the II alone. **The seventh, Doh, should go to Te.** If the II goes to the I_c, the Doh is stationary, but **goes to Te in the following chord** (V or V₇), and the Te in turn comes back to Doh. Figure 87.

87. 

II₇ II₇ V_{7c} I II₇ I_c V₇ II_{7b} V_{7d} I_b

All the seventh chords in this and the following chapters will have the best effect if the seventh is prepared. This is also the case with any dissonant tone.

BARNBY. "O Paradise." GOUNOD. "3d Mass."

88.

Ho-san-na in the high-est.

VI II_{7b} V₇ I II V_{7d}

Figure 89 from Gade's "Aquarellen," contains 11₇ chords in *a*, *b*, and *c* position.

In the following from Chopin's "Barcarolle," the remarkably strong progression of the II₇ is very plainly shown.

CHOPIN. "Barcarolle."

90.

Rule 12. — In all seventh chords the seventh should progress or resolve downward one degree.

For example, Fah to Me in the V_7 , and Doh to Te in the Π_7 . It follows from this that the seventh should not be doubled, as the result would be parallel octaves. The same prohibition applies to any tone that has a definite progression, as Te. See Chapter XI., page 45.

Each of the other minor chords (the vi and the iii) **may be used with the seventh added.** Neither is of frequent occurrence; when used they progress normally. Figure 91, *a*. In Figure 89, the chord marked + is the III_7 , progressing normally to the vi. In this III_7 , the third is omitted, as we know is sometimes the case in the seventh chords.

Sir JOHN STAINER. "Anthem."

b.

91.

a.

b.

III VI₇ II III₇ VI VI_{7b} II_{7d} V_{7b} I

Figure 91, *b*, from an anthem by Sir John Stainer, illustrates the use of the VI_7 . In this case the II also contains a seventh. Such progressions of seventh chords are very common.

A chord of the seventh is also formed on the viio, the vii⁹. We may consider this as either a true seventh chord on Te, or, preferably, as a part of the V_7 with added ninth. Its progression is either directly to the I or through the V_7 to the I. Te goes to Doh, Lah to Soh, and usually Fah to Me. If its progression is to the V_7 , Lah is the only tone to move. Figure 92, *a*.

MENDELSSOHN. "St. Paul."

a.

b.

92.

VII_7^{o} V_7, g VII_7^{o} I VII_7^{o} V_7 $\text{VII}_{7\text{c}}^{\text{o}}$ I

6th. 6th.

This chord is very frequently used, generally progressing to the V_7 . In the progression of VII_7^{o} to the I_a either the third of the I must be doubled or we have the parallel fifths Ray-Lah, and Doh-Soh, so the progression to the V_7 is preferred.

These last chords are of infrequent occurrence, and the added seventh weakens rather than strengthens the chord ; for it will be noticed that in each case the three upper tones of the seventh chords form triads that are the four strongest chords of the key. Thus the VI_7 = the sub-mediant tone + the I chord. The II_7 = the super-tonic tone + the IV chord. The III_7 = the mediant tone + the V chord. The VII_7^{o} = the sub-tonic tone + the II chord. In each case the tone that is trying to assert itself as root and bear up the other tones as third, fifth, and seventh, is itself the weakest of the four.

It will be interesting for the student to follow out in the case of these chords the method used with the chords studied previously, and determine their character from the character of the tones that compose them.

All the above chords may be used in the a, b, c, and d positions.

Exercise.

First.— Write out all the seventh chords so far studied, in various positions and distributions with their natural resolutions (progressions).

Second.—Write out the following succession of chords in any key except C: V₇, | I, VI, | VI₇, II₇, | V, I, | V, V_{7d}, | I_b, III, | VI, II_b, | I_c, V_{7d}, | I_b, V_c, | I, IV_c, | I, II₇, | I_c, V₇, | I. ||

Third — Harmonize the soprano melody given in Figure 93.

The student is again cautioned that he is not expected to use all the chords that he has studied, or even a majority of them, in writing an exercise. We have studied the chords in the order of the frequency of their use. The student should use them in the same order.

93.

A musical staff in 6/8 time, G clef, featuring a continuous eighth-note pattern. The melody consists of six measures followed by a repeat sign and two more measures.

The following from Chopin's "Ballade," op. 38, shows a series of chords progressing normally but with the seventh added.

CHOPIN. Op. 38.

94.

A musical score for piano in 6/8 time, B-flat clef. It consists of two staves: treble and bass. Below the bass staff, Roman numerals indicate the harmonic progression: I, IV, I_b, III_b, VI₇, II₇, V₇, I. The score shows a series of chords with the seventh added at various points.

CHAPTER XIII.

The I₇ and IV₇. Chords of the Ninth, Eleventh, and Thirteenth.

Still another kind of seventh chord is the **major chord with major seventh**. It is formed on the I and on the IV. These chords are not often used and are extremely harsh. The **I₇** goes to the **IV**. Te going down according to Rule 12. The **IV₇** goes to the **V₇** (see Figure 77, *a*, fourth chord) or **I_c**. In this last progression (**IV₇** to **I_c**) the seventh (Me) remains stationary through the **I_c** and then resolves. Figure 95. Compare the resolution of the **II₇** to the **I_c**.

By continuing to build up thirds on the V we may have the $V_{7,9}$ $V_{7,9,11}$, and $V_{7,9,11,13}$. The last two can hardly be called chords at all, as they lack the necessary element of unity (see definition of chord, Chapter I). They are seldom or never used in their complete form. It is however necessary to understand them as certain combinations of tones are most naturally explained as being these chords. The process of building up thirds must stop here, as the last chord contains all the tones of the scale—the next third would be but the repetition of the root, Soh. Figure 96.

The $V_{7,9}$, however, is much used. In four-voiced writing the chord is necessarily incomplete, the fifth usually being omitted. **Te** and **Fah** progress as in the V_7 , and **Lah** goes to **Soh**. The ninth **Lah**, must always be a true **ninth**, that is, it must never be a second, but must always be at least an octave and one step from the root, **Soh**. The seventh must always be present with the ninth, and the ninth is usually in the soprano part. The *e*, *f*, and *g* positions of chords, that is, chords with the ninth, eleventh, or thirteenth in the bass, are never used. Figure 96 shows the most common way of using these chords.

96.

$V_{7,9}$ $V_{7,9,11}$ $V_{7,9,11,13}$ $V_{7,9}$ V_7 $V_{7,9}$ I $V_{7,11}$ $V_{7,13}$

The following are all from famous compositions of acknowledged masters. They illustrate the use of the $V_{7,9}$, IV_7 , and $V_{7,13}$.

SCHUMANN. "To the Sunshine." BEETHOVEN. Op. 14, No. I.

97.

$V_{7,9}$ I $V_{7,9}$ I IV_c I $V_{7,9}$ (IV_c) I

CHOPIN. "Ballade in F."

smorzando.

I V_{7,13} I V_{7,13} I

CHOPIN. "Nocturne, G Major."

I IV_{7c} I

GOUNOD. "Faust."

V_{7,13} V_{7,9}

Exercise.

First. — Harmonize the Soprano melody given in Figure 98, using the chords indicated.

Second. — Write also a second harmonization of the same melody, using more simple chord progressions.

98.

I₇ IV V_{7,9} IV₇ V₇ I



Third.—Complete Figure 99.

99.

III₇ VI II_{7b} V₇ V₇ V_{7,9,b}

I VI II₇ VII_{9b} II₇ V_{7,9} V₇ III_b V₇ V_{7,13}

In the fourth measure from the end, in the VII_{9b} chord, the Te may be doubled in the tenor part, since it progresses downward, the second Te going to Doh.

CHAPTER XIV.

Irregular Progressions. By-Tones.

We have now studied the formation and natural progression of all the chords that can be formed within the key. It would be beyond the scope of the present work to attempt to follow out irregular progressions of these chords,—in fact it would be impossible even in a much larger work to mention even a majority of the progressions that may be found. But there are some progressions that are of such importance and frequent occurrence that some notice must be taken of them here.

First.—Chords that contain tones in common are frequently used in place of each other. Thus the VI for the I; the II for the IV; the III for the V, and *vice versa*. Figure 100. The ear accepts the substituted chord on account of its similar sound.

A musical staff with two systems. The top system shows a progression from a dominant 7th chord (V7) to a tonic chord (I). The bottom system shows an alternative progression from a dominant 7th chord (V7) to a dominant 13th chord (V7,13). The progression then continues to a tonic chord (I). The chords are labeled below the staff: III_b, V_{7,13}, and I_c. The label "or instead of" is placed between the two systems.

A musical example consisting of two staves. The top staff is in treble clef and shows a sequence of chords: G major, C major, G major, C major, G major, C major, G major, C major. The bottom staff is in bass clef and shows a sequence of chords: D major, A major, D major, A major, D major, A major, D major, A major. Above the top staff, the text "instead of etc., or etc." is written. Below the bottom staff, the Roman numeral "II" is centered.

Second.—Two chords that contain two tones in common also frequently progress to each other. This has been well called the **passive progression**. Here one tone takes the place of another for the moment, and the idea of advancement is subordinate. The illustration will make this plain. Figure 101.

A musical example labeled "101." at the left. It consists of two staves. The top staff is in treble clef and shows a sequence of chords: G major, C major, G major, C major, G major, C major, G major, C major. The bottom staff is in bass clef and shows a sequence of chords: D major, A major, D major, A major, D major, A major, D major, A major. Above the top staff, the text "etc." is written. Below the bottom staff, the Roman numeral "II" is centered.

It was said in Chapter II. that composition deals with voice progression and with chord progression. In such examples as the above, the single moving voice is the point of interest. The following example from Wagner's "Lohengrin" is a wonderfully beautiful use of this simple progression. It is used at the moment when all action on the stage ceases and Lohengrin bids farewell to the swan. Figure 102, *a*. Figure 102, *b*, shows the progression of II to VI, and VI to IV.

WAGNER. "Lohengrin."

a.

Fare - well, fare - well, my dear - est swan.
VI I VI I VI I

102.

MENDELSSOHN. "St. Paul."

b.

Hal le lu - jah.
II VI IV I

We may add, then, to the progressions already studied that of the V₇, or V to VI, the V to III, the IV to II or to VI, the VI to IV or to I, the III to V or to I, the II to VII^o, VII₇^o, or to IV. The following table gives the progressions of each chord in about the order of the frequency of their occurrence.

I to any chord.

II normal to V. Also to V₇, I_c, IV, VII^o, VII₇^o.

III normal to VI. Also to V, V₇, or I.

IV to I, V, V₇, II, VI.

V normal to I. Also to VI, III.

VI normal to II. Also to IV or I,

VII^o to I or V₇.

The addition of the seventh to any one of these chords strengthens its tendency to make the normal progression. Chords in the *b* position move much more easily to the unusual progressions than when they are in either the *a* or the *c* position.

Seventh chords may move to other seventh chords.

When one voice moves to some other tone of the same chord, the other voices remaining stationary, such intermediate tone is called a *by-tone*.

Rule 13.—A by-tone must be a tone of the chord, not some new tone, and must appear on the unaccented part of the beat or measure. Figure 103, *a*, *c*, *d*. The figure so frequently used in accompaniments called "broken chords" is a common example.

a. b. c. d.

103.

HOFMANN. "Melusina."

e.

HUMMEL. Op. 55.

f.

MOZART. "Symphony in E_b."

g.

In Figure 103, *b*, although the new tone really forms a different chord, the V₇, it is customary to regard it as a by-tone. The notes marked with an + in Figure 103, *e*, *f*, and *g* are all by-tones. Two voices may take by-tones at the same time, the other voices remaining without progression. Figure 104, *a*, *b*.

104. *a.* *b.* *c.* *d.* *e.*

At Figure 104, *c*, although both the tones F and B are in the same chord, the V₇, the progression of the soprano is not good. The interval is the augmented fourth, and **any augmented or diminished interval is not suitable for a melodic progression**: see also Figure 104, *d*, *e*.

Exercise.

First.—Harmonize again the melody in Figure 98 and make the seventh, thirteenth, and twenty-first notes by-tones.

Second.—Complete Figure 105.

105.

$\text{vi}_b \text{ I}$ I II $\text{V}_{7,9,11}$

Notice how much greater freedom the use of by-tones gives us. In the first measure are two by-tones. Beginning at the ninth measure the tenor imitates the soprano of the first four measures.

Third.—Complete Figure 106. The notes marked + are by-tones.

106.

CHAPTER XV.

Review.

Before taking up the study of modes and keys, it will be well for us to pause here and consider what material we already have.

We have formed triads and seventh chords on each of the seven tones of the scale, giving us fourteen chords. Each chord may be used in the *b* position, giving us fourteen more. Each *may* be used in the *c* position, though with many this is rare, giving fourteen more. Each seventh chord may be used in the *d* position, giving seven more. In addition we have the ninth, eleventh, and thirteenth chords in various positions, and also the use of by-tones. When we consider that all these chords may be written in any one of twelve keys, and in an endless variety of distributions, it will be seen that we have already sufficient material to enable us to do a great deal. The student should read again the remarks in Chapter VII, and then carefully review the following chapters up to the present. By this means many points will become clearer.

Exercise.

First. — As an exercise take the melody of Figure 107, and use it first as a soprano, then as an alto, then as a tenor, and finally as a bass, transposing so as to make the compass of the voices convenient, and add the three remaining parts in each case. Quarter notes as by-tones may be used wherever effective.

107.

The harmonizations should be written in several ways, in one using only the simplest chords, in another introducing some, not many, of the more unusual chords and progressions.

Below are given the possible harmonizations of each tone of the scale when the soprano is given. The various positions are omitted.

108. 

I	II	III	IV	V	VI	VII ^O	•
I ₇	II ₇	III ₇	IV ₇	V ₇	VI ₇	VII ₇ ^O	
VI	VII ^O	I	II	V _{7,9}	IV	V ₇	
V ₁ ₇	VII ₇ ^O	I ₇	II ₇	V _{7,11}	IV ₇	V _{7,9}	
IV	V	VI	VII ^O	V _{7,13}	II	V _{7,11}	
IV ₇	V ₇	VI ₇	VII ₇ ^O	III	II ₇	V _{7,13}	
II ₇	III ₇	IV ₇	V ₇	III ₇	V _{7,9}	V	
V _{7,11}	V _{7,13}	V _{7,9}	VI ₇	VII ₇ ^O	III		
		V _{7,11}	I		III ₇		
		V _{7,13}	I ₇		I ₇		

Second.—Write out a similar table of the possible harmonizations of the tones of the scale when the bass is given.

Third.—Harmonize Figure 109. In one place the progression indicated is slightly different from that given in the text.

109. 

VI	IV	I _b	V _{7d}		V ₇	VI	III	VI	I _b	II
----	----	----------------	-----------------	--	----------------	----	-----	----	----------------	----

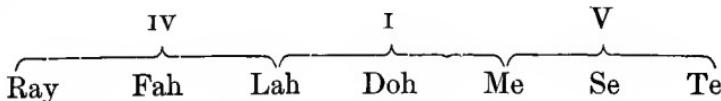
Fourth.—Analyze the hymn tune called "Missionary Hymn," marking with the proper numerals all the chords that we have studied.

CHAPTER XVI.

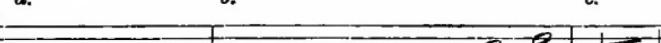
The Minor Mode.

We have seen in Chapter VIII that the three minor chords of a key have the same relation to each other as the three major chords. If this relation is emphasized and the three minor chords are made the most important and the three major chords are made subordinate, the **minor mode** is produced ; minor meaning secondary or subordinate, and mode meaning the manner or method of using the chords. It is important to remember that the character of the chords is unchanged, the minor chords are still sorrowful in character, the major bright and bold, but the whole character of the composition is governed by the minor and not by the major chords as formerly. This is because the minor chords are given greater prominence and the major chords less.

The VI now becomes the central chord, and is a **minor tonic**, to which **the III is a dominant** and **the II a sub-dominant**. So the chord on Lah, formerly the VI, we now call the I, that is, the minor tonic ; the former III is V, and the II is now IV. Now, the tonic character of this new tonic is greatly strengthened if we make the new dominant (III of the major mode) a major chord by **changing Soh to Se**. Figure 110, *a*. This is almost invariably done, as the III is a very weak chord, and here we require a strong chord if it is to have the dominant character. Our chords will now be : —



Forming a scale of the tones of these chords we have : Lah, Te, Doh, Ray, Me, Fah, Se. This is called the **harmonic minor scale**. We may form chords on each degree of this scale exactly as we did with the major scale. Figure 110, *b*.

110. 

a. *b.* *c.*

110. {

L IV V V I II^0 III^+ IV V VI VII^0

As Lah is now the tonic tone, we regard it as the key note of the minor mode, just as Doh is the key note of the major mode. Thus, if C is Doh, our key is either C major (mode) or A minor (mode), according as we use Doh or Lah as tonic. The two keys are written with the same signature, and are said to be each the **relative** of the other; as, A flat major the relative major of F minor, or A minor the relative minor of C major, or G the relative major of E minor.

The chords formed on the minor scale are used very nearly as are the corresponding chords in the major scale. Thus the I (on Lah) is used precisely as the I (on Doh). The V, V₇, and IV are used just as the corresponding chords in the major.

The interval from Fah to Se is an augmented second; as stated in Chapter XIV, augmented and diminished intervals are not good melodic intervals, so we will **avoid the progression of Fah to Se**. Figure 110, c.

Exercise.

First. — Harmonize the following bass. When complete compare the result with Figure 41.

a.

111. 

Second.—Complete Figure 111, b.

Third.—Transpose the bass thus completed into c minor and write new upper parts.

111. b.

The use of the b and c positions in the minor mode is the same as in the major, but as the I and IV are here minor chords, the third may be doubled even in the b position.

Figures 112 and 113 illustrate the I, V, and iv in the minor mode.

HÄNDEL. "Acis and Galatea."

112.

GURLITT. Op. 117.

Moderato.

113.

CHAPTER XVII.

The Minor Mode Continued.

It will be found that in the minor mode there is always a tendency to revert to the major mode. The minor mode is more artificial than the major, and the minor chords are weaker than the major, so that it requires a constant effort to make the minor mode appear the basis of the composition. This is found to be especially true when we attempt to use the mediant, sub-mediant, major sub-tonic (using Soh instead of Se), in the minor mode. These three chords are the I, IV, and V of the major mode, and must be used very sparingly or the feeling of the minor mode is lost. By referring to Figure 110, *b*, we find that if Se is used as the seventh of the scale, the III becomes III⁺, a major chord with augmented fifth (the augmented fifth indicated by the + sign), and the sub-tonic becomes a diminished chord. As Se is a necessity if we are to have a leading tone, the chords as shown in Figure 110 are the usual ones in the minor mode. **But the forms with Soh instead of Se also occur.** This is shown by the following, Figure 114. The Soh is most likely to occur when it progresses to some tone other than Lah, and hence the need of a leading tone is less felt. See also Figure 129, *c*.

GRIEG. "Sonata," Op. 7.

114.

G: I_e *V I* *V Ib: I_e* *V* *V₇* *v I* *v I*

BRAHMS. Op. 1.

ZELTER. "Der König in Thule."

The III⁺ is rarely used in simple four-part writing. When used it progresses to the VI as in the major mode, that is, the normal progression. See must progress to Lah. Figure 116, a. The chord is often used with the fifth omitted, thus evading the difficulty. See Figure 117, last chord.

The VI is here a major chord. It progresses to the II^{o} or II_7^{o} as in the major mode, although the progression cannot be called normal since the II^{o} is not a perfect fifth below the VI. Figure 116, b.

The vii^{o} precisely as in the major mode. Figure 116, c.

The II° (on Te) is here a diminished chord, but is used just as the II (on Ray) in the major mode, unless perhaps the α position is more rare. As Te is no longer the leading tone it is free to move either up or down or by a skip. Figure 116, b.

HANDEL. "Messiah."

115.

d: IV VII⁰_b I VI II

a. *b.*

116.

III III+ VI VI II

a. *b.*

MENDELSSOHN. "St. Paul."

117. {

f: VI II^0_b V_7 I VI II^0_b III

Exercise.**First.**—Harmonize the following bass.

118. {

VII V IV V

III_b V I_c

Second.—Harmonize the following soprano.

b.

I₆ VI II^0_b I III III+VI II^0 I₆ V_7 , I

CHAPTER XVIII.

Minor Mode Concluded.

The use of the seventh chords in the minor mode varies but little from their use in the major mode. All the harmonies on the dominant, that is, the V_7 , $V_{7,9}$, $V_{7,9,11}$, $V_{7,9,11,13}$, are only found when the dominant is made major, and are then used as in the major mode, but the chords themselves are slightly different in their form. The V_7 is the same in both modes, and the resolution of the third (Se) and the seventh (Ray) is the same, only Ray moves down a *whole* step to Doh, whereas in the major mode the seventh of the V_7 (Fah) moves down a *half* step to Me.

The $V_{7,9}$ is used as in the major mode, but the ninth (Fah) is a minor ninth, resolving downward a half step.

The $V_{7,11}$, or $V_{7,9,11}$, is rare, but is used as in the major mode.

The $V_{7,13}$, which is about the only form in which the chord of the thirteenth occurs, is used as in the major mode, the thirteenth being here a minor interval.

The II_7^o is very frequently used, and in the same way as in the major mode. Figure 119, *d*.

The VI_7 and the III_7^+ are used as are the corresponding chords in the major mode. Figure 119, *a, b*.

The I_{77} , that is, the minor chord on Lah with the major seventh Se added, is so extremely harsh as not to be used. The I_7 (with Soh) is used progressing to the IV .

The IV_7 (here a minor chord with minor seventh) is much more frequently used than the corresponding IV_7 in the major mode. It is much more pleasant to the ear, and is of considerable importance. It progresses to the V_7 or I_o . Figure 119, *c*. Notice that its tones are the same as those of the II_7 in the major mode. (Ray, Fah, Lah, Doh.)

119.

The musical examples are arranged in two staves. The top staff shows chords a, b, c, d, and e. The bottom staff shows chords a, b, c, d, and e. Below each staff are the corresponding chord names.

Chord Type	Top Staff (a)	Bottom Staff (a)
VI _{7b}	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$
II ⁰	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$
III ₇ ⁺	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$
VI	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$
IV ₇	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$
I _c	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$
IV ₇	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$
V ₇	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$

Chord Type	Top Staff (d)	Bottom Staff (d)
or	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$
II ₇ ⁰	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$
V _{7c}	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$
II ₇ ⁰	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$
I _c	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$

Chord Type	Top Staff (e)	Bottom Staff (e)
or	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$
VII ₇ ⁰	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$
V ₇	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$
VII ₇ ⁰	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$
I	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$	$\begin{array}{c} \text{C} \\ \text{A} \\ \text{G} \\ \text{E} \\ \text{D} \end{array}$

The VII⁰ is used as the corresponding chord in the major mode, but it is a much more important chord. It is known as the chord of the **diminished seventh**, that being the interval formed by the extreme tones of the chord. Figure 119, e. We shall find later that it is borrowed for use in the major mode, and is of the greatest use in moving from one key to another.

The minor mode is frequently a source of great trouble and misunderstanding to students of harmony, but if the following principal facts are kept in mind there need be no trouble.

First. The minor mode is but a shadow or an echo of the major mode, since it is made from it and resembles it greatly.

Second. The chords of the minor mode have the same names and are used almost exactly as the corresponding chords of the major mode. In the key of A, for example, whether the mode be major or minor, the chord on A is the tonic, and is so used,—and the same is true of most of the other chords. In fact, many compositions written in the major mode would be just as correctly written if the signature were changed to that of

the parallel minor,* care being taken to introduce the sharped seventh of the scale as an accidental. Figure 120, *a*, is equally good in either mode.

Convertible Chant. HOPKINS.

a.

120. {

or

{

—————

Exercise.

First.—Harmonize Figure 120, *b*.

b.

{

V_{7,9,11} V_{7d} I 11_{7d}

{

II_{7b} III_b VI II_{7c} III IV 11_{7b} V_{7,13}

* The minor mode on the same key — changing Doh to Lah. Thus, G major (key of one sharp) is the parallel of G minor (two flats).

Second.—Harmonize the following bass.

121.

$V110_7$ $V_{7,13}$ V_7 V_{7b} $V_{7,13}$ V_7 110_7c V_{7d} IV_{7b} I_c V

$II10_{7b}$ $V_{7,13}$ V_7 VI $II10_b$ V_7 IV $II10_7$ V_7 V_{7d} $II10_{7b}$

Third.—Harmonize the following according to the harmonic basis given.

122.

I IV_c I VI IV $II10_{7b}$ I_c V V_7 VI

IV I_c V_7 I $VII10_{7b}$ I_b IV_b I_c V V_7 I

Fourth.—Write the same melody in A major and harmonize it, comparing the chords in the two modes when complete.

The following illustrates the use of some of the chords of the minor mode. Figure 123.

123.

CHOPIN. "Nocturne," No. 11.

a.

b.

$g : I$ $VII10_7$ VI $VII10_{7b}$ V VI I_c $II10_7$ V_7 I

MENDELSSOHN. Op. 22

A musical score for piano. The top staff shows a melodic line with eighth-note patterns and grace notes, ending with a dynamic instruction '8va.....'. The bottom staff shows harmonic changes indicated by Roman numerals and subscripts: IV_b, II₇⁰_b, II₇⁰_b, and II₇⁰_b. The dynamic 'pp' is placed above the second and third harmonic positions.

GOUNOD. "There is a Green Hill."

d.

He died that we might be for-given, He died to make us good.

f: V_{7,9} : I_e

CHAPTER XIX.

Transition or Modulation.

By key is meant the tone on which the tonic is based,— in the major mode, Doh; in the minor mode, Lah. Thus a composition is in the key of G major if the tonic chord is based on G, and is a major chord.

When any chord other than the original tonic assumes the character of tonic, we have a **transition** or **modulation** to some other key or mode. A change of key is properly called a transition, and a change of mode a modulation, but the latter word is frequently used to express either idea. If the idea of the new tonic is sufficiently strong to replace the old tonic completely, the **transition is complete**. If the new tonic is simply suggested, the **transition is passing**.

To produce a transition, a chord that is unmistakably in the new key must be introduced. For example, a new I_c or V₇. As soon as one of these chords is used, all the following chords must be treated as belonging to the new key. A transition is brought about most smoothly, if some chord that is common to both keys (called a **bridge chord**) is used just before the characteristic chord of the new key. For example, in going from the key of C to the key of G, we may use the VI of C as a bridge-chord, and follow it by the I_c or V₇ of the key of G. Figure 124, *a*. In this case the VI of C is composed of the same tones as the II of G, and we treat it as if it were a II.

In Figure 124, *b*, from Beethoven's "Sonata Pathétique," we have precisely the same use of chords. Here the transition is from the key of A \flat to the key of E \flat , the bridge-chord being the minor chord on F.

Another common bridge-chord is the V_c used as I_c. See hymn tune "Duke Street," first cadence. Any triad of the scale

(except vii^o) may be used in the same way. See "Regent Square," third cadence for vi_e used as I_e.

BEETHOVEN. "Sonata Pathétique."

124.

a.

b.

C: V_{7b} VI_b
G: II_b I_c V₇ I

A♭: I V_{7d}

E♭: II V_{7e} I

Rule 14.—The chromatic alteration of a tone must occur in the same part or voice.

That is, if G is in the soprano part in one chord, and G \sharp appears in the next chord, the G \sharp must also be in the soprano part. Figure 125, *a*. To show the possibilities of transition by means of a bridge chord, take the chord of C. This is the I in C, the IV in G, the V in F or in F minor, and the VI in E minor. Hence we could use it in going to any of these keys.

Transitions are also made without the use of a bridge chord, generally by using **two tones** or even a **single tone that is common to both keys**. For example, we may go from the key of C to the key of A \flat by using the tone C, first as the root of the I, and then as the third of the chord on A \flat , and treat this last chord as a I. Figure 125, b.

125. *a.*

b.

c.

BEETHOVEN. "Andante Favori."

dim. *pp*

F: I_b V_{7d} I_b *D_b: I V I*

Figure 125, *c*, shows a similar transition from F to D_b.

Exercise.

First.—Harmonize the following. Write in duplet time.

C: I, V, | I, I_b, | IV, IV_b, | I, | I, V₇, | I, VI, | G: I_c, V₇, | I, | C: IV, V_{7c}, | I, I, | a: VI₇, IV_b, | V, | C: I, V₇, | VI, IV, | F: V_b, V_{7b}, | I, | C: V_{7c}, I, | I, I_b, | I_c, V₇, | I, ||

In distinguishing the keys, C (capital letter) means the key of C major. c (small letter) means the key of c minor.

In the above exercise the student will notice that there are five cadences; the first in C, the second in G, the third in A minor, the fourth in F, and the last in C. It is very common to strengthen a cadence in this way, that is, by making the last chord of a cadence sound like a tonic. We thus contrast keys instead of single chords.

Second.—After writing the foregoing exercise, write a new one as follows: First, a simple melody in half notes and quarter notes, sixteen measures long, in either duple or triple time, composed of four phrases of four measures each, a cadence at the end of each phrase. Figure 120, *b*, may be used as a model. Make the first cadence to the I either perfect or imperfect; the second to the V, using a transition to that key: the third, a similar transitional cadence to the IV; and the last a strong perfect authentic cadence to the I. In this exercise the student for the first time furnishes all the material. He will succeed best if he aims at simplicity rather than at "effect."

Figure 124, *b*, shows a transition to the key of the V. Figure 125, *c*, gives one to the key of the \flat VI. Figure 126, *a*, gives one to the key of the III. Figure 126, *b*, gives one to the key of the IV.

a.

KULLAK. "Octave Study."

126.

F: I *VI_b* *III_c*

a: *I_c* *V₁₃* *V₇*

b.

SCHUMANN. "Grillen."

D扁: *V* *V_{7d}* *I_b* *V_{7c}* *I_{b7}*

G大: *V₇*

Third.—Harmonize the following. It is the bass of a well known hymn-tune.

127.

VI_c $F: \text{II} \ I_c \ V_7 \ Bb: V$ I_b7 IV

$g: \text{I}_c \ V$ $V \ \text{I}_b \ I$

I I_a I_b

CHAPTER XX.

Altered Chords.

There are four ways of using tones that do not belong to the scale of our key:

First.—By changing the key. This we have spoken of in the preceding chapter on transition.

Second.—By using altered chords.

Third.—By chromatic chords.

Fourth.—By mixed chords.

To understand the second and third classes, we must remember that every chord possesses two characters: First, the character that is determined by its form, whether major, minor, diminished, etc., which is independent of key and which we may call its **formal character**. Second, the character that is determined by its relation to other chords, whether tonic, super-tonic, etc., which for want of a better name we may call its **degree character**.

Any change in a chord effects its formal character, but it is possible to change one of the tones of a chord without destroying its degree character. Thus we may make a major sub-dominant into a minor sub-dominant, and it will be a sub-dominant chord still, though its form is changed. Figure 128, *a*. Chords so changed are called **altered chords**. They are used nearly as are the chords from which they are formed. The major dominant that we use in the minor mode is really an altered chord.

The following are the most common altered chords. Notice that any tone of the chord except the root may be changed.

The I may be made minor.

The i may be made major. Figure 128, *b*.

Either may be changed to a major chord with augmented fifth. These chords are used just as before alteration, except that the sharped tone must progress upward a half-step. Figure 128, *c*, and Figure 129, *d*.

The II may be made II^o and the reverse without change in their use. So too with the II₇ and the II₇^o. Figure 128, d.

The IV may be made minor and the IV made major without change in their use. Figure 128, a.

The IV or the V may have the fifth augmented, the fifth moving up a half-step.

The ninth in the V_{7,9} may be flattened in the major mode or sharpened in the minor mode. Used as before alteration. Figure 128, e.

The fifth in the V₇ may be either raised or lowered a half-step.

The VII^o in the major mode and the II₇^o in the minor mode may have the seventh flattened, giving the chord of the diminished seventh. Figure 128, f.

a.

I IV

b.

I_c V₇

c.

I or I I+ IV

128.

d.

IV II₇^o_b V₇_d I_b

e.

V₇, b9 VII_{b7}^o V₇_b

f.

V₇, b9 VII_{b7}^o V₇_b

This changing of major chords to minor and the reverse produces the effect of mingling the two modes. Many beautiful effects are produced in this way by modern writers. Figure 129.

Chopin. "Nocturne," No. 11. Schubert. "Minuet," from op. 78.
 a. b.

129.

The score consists of two staves. The top staff is in G major (G♯) and 3/4 time, showing measures 129-130. The bottom staff is in B major (B♯) and 2/4 time, showing measures 1-5. The piano accompaniment is present in both staves.

g : I_{b7} *IV* *iv* *I* *G[#] : I*

B : VI *I* *I* *I_c* *V* *I*

CRAMER. "Study."

c.

The score consists of two staves. The top staff is in B-flat major (B♭) and 2/4 time, showing measures 1-5. The bottom staff is in G major (G) and 2/4 time, showing measures 1-5. The piano accompaniment is present in both staves.

B♭ : V *v* *II* *IV* *I*

MENDELSSOHN. "Capriccio," op. 22.

d.

The score consists of two staves. The top staff is in G major (G) and 2/4 time, showing measures 1-4. The bottom staff is in G major (G) and 2/4 time, showing measures 1-4. The piano accompaniment is present in both staves.

G : I *I⁺* *VI* *I*

Exercise.

First.—Harmonize the following.

130.

I IV_c VII_{b7d}⁰ V₇ g : V_b I IV_{7b}⁰
 B_d : II_{7b} II_{7b}⁰ V_b V V+

Second.—Also the following.

131.

I⁺ IV V_{7,9} V_{7,b9} V₇ III III VI II_{7c}
 V₇ IV V₇ VI II_b II_b II_{7b}⁰ V_{7d} V_{7c}

Third.—Complete Figure 132.

132.

IV_c II_{7b} II₇ V₇ VII_{b7c}⁰

I G : V₇ V_{7,9}^{IIIb} V_{7d} C : II_{7d} V_{7b} F : V_{7d} III V_{7c}

A musical score for piano, featuring two staves. The top staff is in treble clef and the bottom staff is in bass clef. The score consists of five measures. Measure 1: Treble staff has eighth-note pairs (A, C#), (D, F#), (E, G), (F, A). Bass staff is empty. Measure 2: Treble staff has eighth-note pairs (B, D#), (C, E#), (D, F#), (E, G). Bass staff has a half note B. Measure 3: Treble staff has eighth-note pairs (G, B), (A, C#), (B, D#), (C, E#). Bass staff has a half note C. Measure 4: Treble staff has eighth-note pairs (D, F#), (E, G), (F, A), (G, B). Bass staff has a half note D. Measure 5: Treble staff has eighth-note pairs (A, C#), (B, D#), (C, E#), (D, F#). Bass staff has a half note E. The key signature is C major (no sharps or flats).

C: V₇ V_{7,9}

I⁺ I_{b7}⁺ IV IV₇ II_b

V_{7,9}

CHAPTER XXI.

Chromatic Chords.

In a **chromatic chord** both the formal and the degree character of the chord have been changed so that the chord appears as if borrowed from some other key; but it differs from a transitional chord in that it **must progress to some characteristic chord of the original key**. The characteristic chords of a key are those that belong unmistakably to that key only, that is, the I_e and V_7 . For example, if the II_7 is made II_7 , its character both as a minor chord and as a super-tonic chord is lost. If it progresses to the V it produces the effect of a new key, and we say that it brings about a transition. If, however, it progresses to the I_e or V_7 , either of these chords strongly contradicts any transitional tendency, and we call the chord **chromatic**. In the first case the chords are lettered in the new key (that is V_7 , I). Figure 133, *a*. In the second case the chords are lettered in the original key (that is II_7 , I_e or V_7 , I). Figure 133, *b*.

133.

$C: \text{vi}$
 $G: \text{ii}$

V_7

I

$C: \text{vi}$

II_7

I_e

V_7

I

c.

C: vi II₇ V₇ I IV_e IV_c I

Transitional chords change the key. Chromatic chords try to change the key but are not allowed to do so. Altered chords contain tones foreign to the key, but no change of key is thought of. Figure 133, *a*, *b*, *c*, shows respectively transitional, chromatic, and altered chords.

The most common chromatic chords are II, II₇, II_{7,9}, #IV^o, #IV₇^o, #IV_{b7}^o, all of which must progress to the I_c or V₇. The #IV^o is the IV with its root raised a half step from Fah to F_c, thus making a diminished chord. The #IV_{b7}^o gives us another form of the diminished seventh chord. We see from these chords that the root of a chord may be changed to produce a chromatic chord. This was not the case with an altered chord. The following shows various chromatic chords. The student should complete the progressions through to the I chord. The last example, Figure 134, *f*, shows a major mediant progressing to a super-tonic chord. This may be reckoned as a chromatic chord, for the II_b, although not unmistakably in the key, has a very strong progression to the characteristic chords I_c and V₇.

134. *a.* *b.* *c.* *d.* *e.* *f.*

II₇ I_c II_{7,9} V_{7,13} #IV^o I_c #IV₇^o #IV_{b7}^o I_c III II_b

There is one class of progressions that seem to lie between transitions on the one hand and chromatic chords on the other.

Any chord of the key (except the VII^0) may be preceded by a major chord (with or without a minor seventh) formed on the fifth above, and still no real transition be produced. Thus the progression III, VI, if followed immediately by the proper progression of the VI, will give very little effect of transition. Such progressions are the same as passing transitions, only they are so very fleeting that the result is simply a strengthening of the original chord by giving it a *quasi* tonic effect. Notice that the progression is in each case the same as V or V_7 to I or i. Figure 135, a, gives a series of such progressions. Figure 135, b, shows a somewhat similar progression, each chord having a seventh added; in this case no sooner is a key indicated by a V_7 , than it is contradicted by another V_7 , giving such a shifting of harmonies and key relationships as may well be called kaleidoscopic. The sixth chord is the II^0_7 in the key of C and progresses regularly, but the fifth chord progresses to it in a very irregular way.

a.

BEETHOVEN. Op. 14, No. 2.

C: V_7 I d: V_7 i e: V_7 i C: V_7d I

135.

CHOPIN. "Mazurka," op. 17, No. 1.

b.

F: $\text{V}_7\text{B}\flat$: $\text{V}_7\text{E}\flat$: $\text{V}_7\text{A}\flat$: $\text{V}_7\text{D}\flat$: V_7 ? C: V_7F : $\text{V}_7\text{B}\flat$: $\text{V}_7\text{E}\flat$: V_7

Exercise.

First. — Harmonize the following soprano.

136.

I⁺ IV II₇ II₇ I_e

III vi II₇ II_{7b} V_{7d} IV_e II_{7d}⁹ I

Second. — Complete and write the numerals to the following.

137.

vii_{7b}⁹ V⁺

II_b III II II₇ V_{7,13}

CHAPTER XXII.

Mixed Chords.

Mixed chords are so called because they contain an interval — the augmented sixth — which cannot be formed in the scale of one key, but requires the mixing of two scales. There are three of these chords, all containing this interval. Figure 138, *a*, *b*, *c*. They are generally called the chords of the **augmented sixth**, the first, Figure 138, *a*, being the so-called **French**, the second (*b*) the so-called **Italian**, and the third (*c*) the **German sixth**. The lettering for these chords is somewhat complicated and is as shown in the figure. These chords originate in the minor mode where the II is by nature a diminished chord, and the IV a minor chord. By combining with these two chords the characteristic tone of the dominant key (Fe) the chords are produced as shown. The interval of the augmented sixth almost invariably appears in the outer voices, though the chords may be used in other positions. They progress normally, to the I_e, V, or V₇.

a. b. c.

138.

c: II₇_c V #IV₇_b V #IV₇_b I_c or I_c V

d. e. f.

a: #IV₇_b I_c V f: II₇_c V

Figure 138, *g*, shows the growth of these three chords.

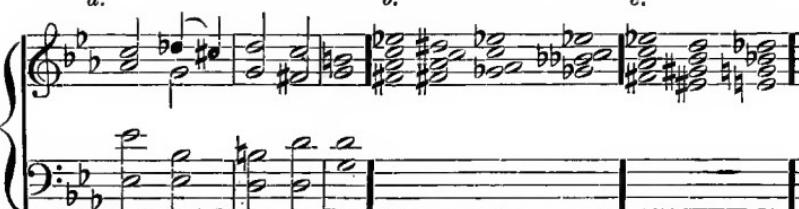
g.

The musical staff illustrates the progression of three chords. It starts with a key signature of one flat (F major). The first chord is labeled 'French.' and consists of notes A, C, E, G, and B-flat. The second chord is labeled 'Italian.' and consists of notes A, C, E, G, and D-sharp. The third chord is labeled 'German.' and consists of notes A, C, E, G, and B-sharp. The progression continues with the same notes in a different order: A, C, E, G, and D-sharp; A, C, E, G, and B-sharp; and finally A, C, E, G, and B-sharp again.

c: I^o II^o II^o_c IV \$IV^o \$IV^o_b IV₇ \$IV^o \$IV^o_b

French. Italian. German.

As the VII^o of the major mode is the II^o of the relative minor mode, similar chords may be based on the VII^o (II^o of the minor mode) or on the #II^o (#IV^o of the minor mode). Figure 138, *d*. It is best to regard these as belonging to the minor mode and borrowed for use in the major mode rather than as chords formed in the major mode. They are really examples of passing transitions. In the same way the same chord is found apparently based on the dominant, but it is no more a part of the key than any other chromatic or transitional chord. Figure 138, *e*. It would, however, be possible to regard this last as an altered chord, that is, a V₇, with the fifth flattened. A great deal of confusion exists among writers on harmony regarding these chords, but the student may avoid it all by remembering that **there are but three such chords possible, the three shown in Figure 138, a, b, c.** All others are borrowed from other keys and should be so regarded. Some composers, however, not liking to see the E flat (for example) in the first chord, Figure 138, *c*, progress upward, have written it as D \sharp . This notation should be avoided, as the chord is the same whether the E \flat remains stationary into the I or progresses upward to E natural of the I. On account of the similarity of the augmented sixth and the minor seventh, both intervals being represented by the same keys on a keyed instrument, they are sometimes used interchangably. Thus if the German chord of the augmented sixth in the key of C be written as at Figure 138, *f*, instead of as at Figure 138, *c*, we have the V₇ of D flat, at once changing the key. This change of F \sharp to G \flat is called an **enharmonic change**. Such changes are made to effect quickly a transition to a remote key. Figure 139, *a*.

139. 

a.

b.

c.

E♭: IV_e I_{b7} *g, e, bb, db.*

g: #IV_{7b}⁰ I_c V₇ I

By the use of the same expedient the chord of the diminished seventh may be written in four ways, and hence treated as belonging in any one of four keys. This opens up almost endless possibilities of transition and modulation. Figure 139, *b.* These chords although played the same on the piano, are in the keys of *G*, *E*, *B♭*, and *D♭*. Viewed from the standpoint of the keyboard there are but three different diminished seventh chords, although they may be written in twelve different ways. Figure 139, *c.*

Exercise.

First.—Write out the three chords of the augmented sixth in six different keys.

Second.—Write out the twelve diminished seventh chords (one for each key), noticing how they coincide on the keyboard.

Third.—Harmonize the following soprano.

140. 

IV IV₇ I_c II_{7c}⁰ I_c V_{7d}

IV IV₇ #IV_{7b}⁰ I_c

Fourth.—Write a sixteen-measure exercise consisting of four four-measure phrases, introducing an altered chord, a chromatic chord, a transitional cadence, and a mixed chord. One four-measure phrase may be written in the relative minor.

The following illustrates the use of some of these chords.

a.

SPOHR. "Jessonda."

141.

b: V V₇, I I₆₄
 f: IV₇ #IV₇⁰ I_c V₇ I

b.

SCHUBERT. "Minuet," op. 78.

D: I #IV₇⁰ V #IV₇⁰_b II_c⁰ #IV₇⁰_b V

c.

J. FIELD. "Nocturne," No. 18.

F: I I I₇ (I₇)
 a: #IV₇⁰ V

CHAPTER XXIII.

The Flat Sub-Mediant and Flat Super-Tonic.

There are two chords that are of rather frequent occurrence, neither of them strictly new chords, but chords that are used in a new way. The first is the **flatted VI** used chromatically progressing to the I_e or V₇. This chord belongs to the minor mode, but is also used in the major mode. Figure 142, *a*. See also Figure 124, *c*, where the chord on D \flat is really a bridge chord, being first the flat VI and then the I.

The other chord is formed on the **flatted super-tonic** tone and is sometimes called the chord of the **Neapolitan sixth**. It is used in either the major or the minor mode, generally in the *b* position and progressing as a II to the I_e or to the V₇. Figure 142, *b*, and Figure 143. See also Figure 158, second measure.

142. *a.*

b.

bVI I_e bVI V₇ bII_b

143.

BEETHOVEN. "Funeral March," op. 26.

ab: I IV bII V₇ I

We have now studied all the chords used in musical composition. In the following chapters we shall study the use that is made of non-harmonic tones. The student in reading musical compositions will no doubt find chords progressing differently from the progressions given in these chapters. This is especially true of the compositions of the most modern writers. Such progressions need cause no surprise. They hold the same position in music that the liberties taken by poets hold in language. As in poetry the ordinary rules of grammar are usually observed, so in musical composition the rules of musical grammar as given in these pages are usually observed. It is only for special effect that they may be violated. Taste and experience alone will determine whether the effect is a good or a bad one. It will be found that in all good progressions, no matter how abrupt or irregular they may seem, there is always some connection between the chords, or some æsthetic idea that is of sufficient importance to override the natural progression of the chord. For instance, the V_7 of the key of C may go directly to the I_c of the key of B, apparently a most irregular progression. But if instead of the seventh F in the first chord we write the augmented sixth E \sharp , our chord becomes the German sixth of the key of B and progresses regularly. Figure 144.

144.

Other irregular progressions are explained as being delayed progressions, of which we have had some examples. Others again, are produced by substituting a similar chord for the one expected. Still others come by the progression of the individual voices which for the moment may be of more importance than the harmonic progression.

If chords always followed their bent, that is, always progressed normally, we should be constantly having cadences; music could possess no variety, and the expression of moods, feelings, and experiences would be impossible. But with young writers the tendency is usually to strive after startling changes, "pretty effects," and far-fetched harmonizations. The student should try to secure first a smooth easily-flowing style, and then if his taste is for novelties, he will run less risk of introducing them in such a way as to make himself ridiculous.

Exercise.

First.—Fill in the parts that are wanting in Figure 145 and write the numerals underneath.

145.

Second.—Write two sixteen-measure, four-phrase compositions introducing the VII^{7} and the VI^{7} and also making some use of altered, mixed, and transitional chords when they can be employed naturally. Write in some key containing more than two sharps or flats and in four-four or six-eight time.

CHAPTER XXIV.

Passing and Changing Tones. Appoggiaturas.

Not every combination of tones used in musical composition is a chord. We will now examine the different ways of using tones that are foreign to the harmony.

The most important condition in using non-harmonic tones is that they move **by degrees**.

First.—When a tone of a chord proceeds during the continuance of the chord to the next degree above or below, the non-harmonic tone thus introduced is called a **passing tone**. Figure 146, *a*.

Rule 15.—A passing tone must be approached and left by degrees.

Second.—If a tone fulfills all the other conditions of a passing tone, but returns at once to the tone from which it came, it is a **changing tone**. Figure 146, *b*. Passing or changing tones may appear in two or even in three voices at once. Figure 146, *c*.

Third.—When a non-harmonic tone appears at the same time with a chord tone, proceeding during the continuance of the chord to a chord tone, such foreign tone is called an **appoggiatura**. Figure 146, *d*. Such tones may be approached by a skip, but they must be left by degrees.

146.

The musical example consists of four measures of music on a treble and bass staff. Measure a: Treble staff has a quarter note followed by a passing tone (marked with a plus sign) and a quarter note. Bass staff has a half note followed by a quarter note. Measure b: Treble staff has a quarter note followed by a passing tone (marked with a plus sign) and a half note. Bass staff has a half note followed by a quarter note. Measure c: Treble staff has a half note followed by a passing tone (marked with a plus sign) and a half note. Bass staff has a half note followed by a quarter note. Measure d: Treble staff has a half note followed by an appoggiatura (marked with a plus sign) and a half note. Bass staff has a half note followed by a quarter note.

Figure 147, *a*, the fifth note in the soprano is a changing tone. Figure 147, *b*, the third note in the soprano is an appoggiatura, and the fifth is also a changing tone. Figure 147, *c*, the notes marked with a cross are passing tones.

BEETHOVEN. "Rondo in C."

147.

KUHLAU. Op. 55, No. 3.

Exercise.

First.—Harmonize Figure 148, treating some of the tones as non-harmonic tones.

148.

Second.—Take any three of the exercises previously written, and rewrite them introducing non-harmonic tones wherever they can be effectively used. Do not try to use as many as possible, but rather to use them as well as possible.

Third.--Complete Figure 149.

149.

The musical score for Figure 149 is divided into two systems. The first system begins with a treble clef, a key signature of one sharp (G major), and a common time signature (indicated by a '4'). The melody consists of eighth-note patterns. The second system begins with a bass clef, a key signature of one sharp (G major), and a common time signature. The bass line provides harmonic support to the treble line above. Both systems conclude with a double bar line and repeat dots, indicating that the figure can be repeated.

CHAPTER XXV.

Anticipation. Pedal Point.

Fourth.—When a tone belonging to one chord is introduced as a non-harmonic tone into the preceding chord, it is called an **anticipation** or an **anticipatory tone**. Figure 150. This occurs frequently at the *end* of a period or of a whole composition. Many of Händel's pieces end thus. See also Figure 112.

BEETHOVEN. Op. 49, No. 2.

a.

150.

HÄNDEL. "Angels ever Bright."

b.

O take me to your care.

Fifth.—By an extension of such passages as the one shown at Figure 146, *c*, the bass tone may be held indefinitely and quite

independently of the harmonies of the upper voices. Such use is called **pedal point**. It no doubt originated in organ playing, where a tone is frequently held with the foot on the pedal board, while the hands play the manuals quite independently. The independent tone usually occurs in the bass, but is sometimes found in any one of the other parts. Generally it is the dominant or tonic tone that is so held. It is immaterial whether the pedal point be held throughout or constantly repeated, see Figure 151, *a*, and 151, *b*.

Rule 16.—The beginning and the end of the pedal point must be a part of the harmony. Figure 151, *b*.

It would require too much space to quote many illustrations of pedal point, but the student may refer to any or all of the following: Heller, "Slumber Song" from op. 81, the repeated A \flat ; Chopin, "Berceuse," in which the low D \flat of the bass held by the damper pedal occurs in every measure, and the harmony scarcely varies from I, V₇; Chopin prelude in D \flat , the A \flat or G \sharp is heard nearly all the time. In Wagner's "Siegfried" there is a passage in which the horns hold a tone through some thirty-four measures — an extreme example of a pedal point in a middle voice.

The following illustrates the use of the pedal point both in sustained form and in repeated form. See also Figure 158.

BACH. "Prelude, No. 22."

151. { *a.*

Pedal Point.

b.

GADE. "The Crusaders."

Pedal Point.

Exercise.

Harmonize the following.

152.

$\text{II}_7 \text{V}_7 \text{VI}$ Pedal Point.

153.

$g: \text{I} \quad \text{V}_7\text{c} \quad \text{V}_7\text{b} \quad \text{I} \quad \text{III}_{\text{b}}\text{VII}_7 \quad \text{V}_7 \quad \text{V}_7\text{b} \quad \text{I} \quad f: \text{V}_7\text{c}$

$\text{I} \quad \text{IV}_c \quad \text{II}_7\text{d} \quad \text{B7: } \text{V}_{7,9,11} \quad \text{III}_b \quad \text{V}_{7,9} \quad \text{I}_c \quad g: \text{V}_7$

The musical score consists of two staves. The top staff is in treble clef and the bottom staff is in bass clef. Both staves are in common time. The key signature is one flat, indicating B-flat major. The music is divided into measures by vertical bar lines. Below each measure, the chord name is written. The progression of chords is as follows:

- Measure 1: I (B-flat major)
- Measure 2: IV_c (E-flat major)
- Measure 3: II₇⁰_d (D major)
- Measure 4: I (B-flat major)
- Measure 5: VI (F major)
- Measure 6: II₇⁰_b (B-flat major)
- Measure 7: I_c (C major)
- Measure 8: V_{7,13} (G major)
- Measure 9: V₇ (G major)
- Measure 10: I (B-flat major)

CHAPTER XXVI.

Suspensions or Retardations.

Sixth.—By far the most important method of using non-harmonic tones is as follows. When a tone of a chord is delayed and is heard in the following chord as a dissonance, it is called a **suspension** or **retardation**. Figure 154, *a* and *b*. The tone is first heard as a consonance, and becomes a non-harmonic tone by being held while the rest of the chord changes. The dissonant tone must come to consonance during the second chord. The suspended (non-harmonic) tone usually moves down one degree in resolving, but Te may be suspended before Doh. If the delayed tone does not become a dissonance in the second chord, but simply forms a new chord, it is not regarded as a suspension. Figure 154, *d*. A suspension differs from a dissonant chord in that **the suspended tone is first heard as a consonance, and then resolves during the continuation of the next chord**; while the dissonance resolves with the chord. Compare Figure 154, *b*, and 154, *c*. In other words **the suspended tone is foreign to the chord**; the dissonant tone is a part of the chord.

The suspension usually occurs on the accented part of the beat or measure. **The tone to which the suspended tone goes should not be heard with the suspended tone at a less distance than an octave below.** Figure 154, *e*. In four-part writing it is best that the tone to which the suspended tone goes should not be heard with the suspended tone at all, though examples of such use sometimes occur.

The student will find that passing tones, appoggiaturas, and suspended tones do not always go directly to the next degree of the scale, but move first to the tone one degree above or below, or even skip to some other tone of the chord. Figure, 154, *f, g*,

h. Such progressions are to be classed as irregular, and had best be avoided until the student is thoroughly acquainted with the more ordinary methods of progression.

154.

V II IV_7 III_b

Exercise.

First and Second.—Complete Figures 155 and 156. The suspensions are marked with a cross.

155.

+ + +

156.

Pedal Point.

Third.—Write the descending and ascending scale of E in the soprano, using any length of notes desired, then harmonize. Similarly write the ascending and descending scale of A \flat in the bass and harmonize. Be especially careful of the descending Te. The following from "Lohengrin" is a beautiful example of a harmonization of the descending scale. The student is now familiar with all the progressions used.

WAGNER. Prelude to "Lohengrin."

157. 

f #: I VI_b V_{7e} I_b IV₇ II_b⁰ V₇

The following shows pedal point, altered chords, \flat II, and suspensions.

ROSSINI. "Stabat Mater."

158. 

g: I I II bII I_c I_e Sus. V

Pedal Point.

BACH. "Organ Prelude."



+

We have now reached the limit of our subject. The student it is hoped, has acquired a fair knowledge of all the material used in musical composition, and of the ordinary methods of using this

material. As this little work only aims to give the barest outline of harmony, the student is urged to enter upon the study of some of the larger works which deal with the subject exhaustively. If these few chapters have influenced any to make a thorough study of composition, or if by their means any have gained a clearer insight into the contents of musical compositions and the material used by all composers from the least to the greatest, their purpose has been fully attained.

CHAPTER XXVII.

Figured or Thorough Bass.

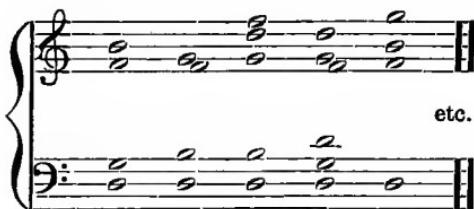
Harmony was the gradual outgrowth of Counterpoint. In the latter it was the intervals between the voices rather than harmonic progressions that were regarded as of the highest importance. Thus it was formerly the custom to regard each voice as simply a certain interval above the Bass, not as a component part of a chord. With this in mind it was customary to write a Bass part only and place figures under each note indicating what intervals were to be taken by the upper voices. Thus a *G* in the Bass with the figures $\frac{7}{3}$ (read *down*, seven, five, three) under it would indicate that the upper voices sang the 3d, 5th and 7th above *G*—or as we say now *V₇* (key of *C*). It is to be noticed that so long as these intervals appear in the upper voices, it is a matter of indifference in what order the voices take these intervals—the 7th for example may be in any one of the upper voices. Modern Harmony pays comparatively little attention to intervals and their arrangement, concerning itself rather with melodies and their harmonization, harmonic progression, sonority of effect, etc. Thus while the modern composer looks at his composition largely as a series of chords, each of which has its own character—almost its own individuality—the older writers regarded their compositions as a number of layers (voices) arranged at certain intervals above the Bass. Although the figured Bass spoken of above is gradually falling into disuse, still the student is certain to find it in his reading and it will be well for him to have some knowledge of it—especially as the principles on which it is based are very simple. They are as follows:

Any figure underneath a Bass note requires the writing of the corresponding interval above the Bass. Thus,



is the same as

The number of notes written is of no importance provided we write at least one for each figure. In other words, the figuring is the same for any number of voices, three, four, five, six or more. The order in which the intervals appear above the Bass note is immaterial. Thus  may be written in any of the following ways



The figures always refer to the intervals as they stand in the signature. Thus  requires the *minor* 7th to be written over the B \flat , the C and the D, but the *major* 7th over the E \flat .

In order to simplify the writing of figures it is customary to omit certain ones. Thus, when no figure at all is written it is understood that the intervals $\frac{5}{4}$ are required, i. e., the written note is the Bass of a common chord in A position (uninverted). In the form $\frac{6}{4}$ the figure 3 is usually omitted. The figure 8 is always omitted unless such omission might cause misunderstanding.

or means or means implies but

$\frac{3}{3}$ $\frac{5}{5}$ $\frac{3}{3}$ $\frac{5}{5}$ $\frac{3}{3}$ $\frac{5}{5}$

If it is necessary to affect any interval by an accidental, the proper symbol \flat , \sharp , \natural , etc., is placed before the figure, but an accidental *alone* always refers to the third above the Bass. Thus :

implies b_2

b_7 5 3 5 b 5

If the Bass part moves by a passing tone the other voices are to remain stationary ; instead of writing out the new figures to correspond with the new intervals made by the change in the Bass, it is usual to write horizontal lines in the place of figures, Thus :

—

The line also is used to indicate the continuance of any figure, as

$\frac{7}{3}$ $\frac{6}{5}$ $\frac{5}{4}$

Thus the student will notice that in suspensions the left hand figures indicate the suspension, the right hand figures the resolution, as,

When there is a change in the upper voices while the Bass note is held the figures are written side by side. Thus,

or as in the preceding two illustrations.

It was formerly customary when an interval was to be raised a semitone to indicate it by a stroke through the figure, $\cancel{5}$, $\cancel{6}$, etc. This symbol is rarely found now except in the case of the $\cancel{6}$ which is often used. $\cancel{6}$ means of course the same as $\#6$.

In order that the student may become familiar with the figures, he is advised to turn back in his exercise book and write the proper figured Bass under numbers 56, 83, 109, 121, 137. He should also write out the proper notes for the following figured Basses and when complete add the numerals indicating the chords.

The musical score consists of three staves of music in G major (two sharps) and common time (indicated by '2').

- Staff 1:** Shows a sequence of chords: 6, -, 4/2, 6/8, 7/8, 6.
- Staff 2:** Shows a sequence of chords: 3/8, 5/8, 6, 4/8, 6/4, 6, 7/17, 6/8, 7/8, 6.
- Staff 3:** Shows a sequence of chords: 7, 5, 6/8, 6/8, 7, 6/8, 7/5.

APPENDIX A.

Below are given illustrations of the use composers make of the characteristic effects of each tone of the scale.

Doh. Rest, home. Example No. 1. Also the ending of almost any composition.

MENDELSSOHN. "Elijah."

And when he had said this he fell a - sleep.

Te. Piercing, pressing upward. No. 2, the cry of the Saviour on the cross, shows very dramatically the piercing effect of Te dying away into the restful Doh.

GOUNOD. "Redemption."

My Fa ther, In-to Thy hands I com-mend my Spir - it.

No. 3 shows the upward thrusting effect of Te.

STAINER. "Crucifixion."

So must the Son of Man be lift - ed up.

Lah. Sorrowful. Illustrated in No. 4. Also in almost any piece written in a minor key, where Lah is the root of the minor tonic.

STAINER. "Crucifixion."

I am lone in - deed.

Soh. Bold, rousing. Shown in Nos. 5, 6, 7, 8. This is very common. A bugle or trumpet call almost invariably makes use of it.

MENDELSSOHN. "St. Paul."

5. 

Sleep + ers, wake, a voice is call ing.

MENDELSSOHN. "Elijah."

6. 

Call him loud + er.

VERDI. "Trovatore."

7. 

A - rouse + ye, a - rouse + ye !

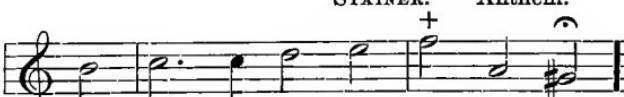
HAYDN. "Creation."

8. 

The Lord is great, and great + His might.

Fah. Solemn. This effect is well shown in No. 9. Another example is the ordinary use of this tone in the "Amen Close" of church music.

STAINER. "Anthem."

9. 

When sin + ners meet their aw ful doom.

Me. Quiet, plaintive. In Nos. 10 and 11 the peculiar effect of Me is easily heard. No. 10 expresses rest as no other tone could, and the plaintiveness of No. 11 is unmistakable.

MENDELSSOHN. "Elijah."

+

10. 

O rest in the Lord.

HÄNDEL. "Angels ever Bright."

+

+

+

11. 

Take, O take me, take me, take me.

Ray. Expectant. The character of Ray is the least impressive of all, but if the student will try the two examples, Nos. 12 and 13, he will see that no other tone could be used as well — especially in separating the verb from its object by three measures rest as in No. 13. Let the student sing No. 13, using Doh instead of Ray for the word "bring" and note the effect.

HOFMANN. "Melusina."

12. 

A - rise, a - rise.

HÄNDEL. "Samson."

13. 

Ye men of Gaz a, hith - er bring The etc.

APPENDIX B.

The following exercises are given that the teacher may have an additional number of exercises from which to draw in case he wishes to increase the amount of work done by the pupil. Some of them contain exceptional uses of the chords, many of these being marked with a cross. The student, however, should not make use of such progressions unless they are especially marked. It is hoped, too, that an added interest is given by introducing several well-known melodies and short excerpts from standard composers. The latter are sometimes slightly altered to admit of being used by the student at his present stage of development.

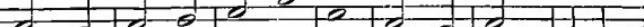
The teacher is of course at liberty to add exercises of his own making, or those taken from other works on harmony, as he may see fit.

In lettering, a dash after a letter, as V—, indicates that the chord is sustained another beat without repetition. A bracket under several letters indicates that they come within the time of one beat.

Chapter I.

1. 

2. 

3. 

4.

Treble clef

Common time

Chapter II.

5.

Bass clef

3/4 time

6.

Treble clef

2/2 time

7.

WAGNER. Arr.

Treble clef

2/4 time

Chapter III.

Mark the following intervals taken from Chopin's "Polonaise in C \sharp minor."

8.

Treble clef

Common time

9.

Bass clef

Common time

Write above the following the intervals marked.

M. 3. m. 3. A. 4. D. 5. M. 5. D. 7. M. 6. m. 6. M. 2. D. 3. M. 3. m. 6.

10.

Chapter IV.

11.

12.

"Auld Lang Syne."

13.

Chapter V

BUSSLER.

14. 

15. 

16. 

Chapter VI.

17. 

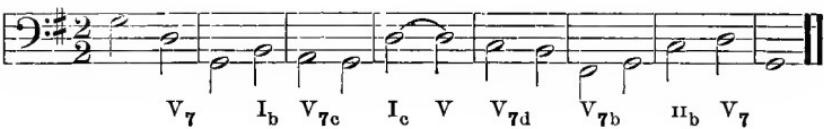
18. 

19. 



Chapter VIII.

PROUT.

20. 

$V_7 \quad I_b \quad V_{7c} \quad I_c \quad V \quad V_{7d} \quad V_{7b} \quad II_b \quad V_7$

21. 

$I \quad IV \quad | \quad V \quad | \quad I_b \quad | \quad IV_b \quad IV \quad | \quad II \quad V \quad I_b \quad | \quad IV \quad V_{7b} \quad | \quad I \quad | \quad IV_b \quad | \quad II_b \quad | \quad V_7 \quad | \quad I \quad |$

22. 

$II \quad | \quad I_c \quad V$



$V_{7d} \quad II \quad V_7$

23. 

IV_c

IV_c

Chapter IX.

24.

I_b VI II II_b I_c V I_b II_b

CHOPIN. (Arr.)

25.

V₇

IV_a I

MENDELSSOHN. (Arr.)

26

I V_{7c} V_{7c} V_{7d} I_b V_c

I_b IV I_b V_b V_{7b} V₇ I I_b IV II I_e V

Do not harmonize the appoggiaturas.

Chapter X.

27. 

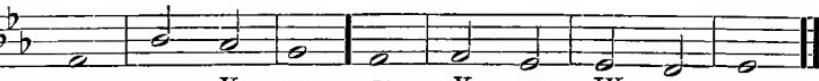
IV_c IV_b V_b V_{7b} VI IV I_b V_{7c}



IV I_b V_{7c} VI IV_b V_{7b} IV_c I_b IV I

28. 

V_{7b} V



V₇ VI II V VI IV

29. 

V III_b V₇

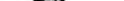


V III_b VI IV V₇ IV_c



V VI V_{7d} IV

Chapter XI.

30.  I V_b | I vii_b^o I | vi ii_b | V | V_b I | IV vii_b^o I |

V I | V V **V_{7d}** | I_b **vii_b^o** | I vi | n_b **V₇** | I //

31. The musical staff consists of five measures. Measure 1: V₇. Measure 2: VI. Measure 3: I_c. Measure 4: V₇. Measure 5: I. Measure 6: I_b. Measure 7: IV. Measure 8: I_b. Measure 9: vi. Measure 10: vi. Measure 11: V.

A musical score for orchestra, page 10, featuring a treble clef staff. The score consists of 12 measures. Measures 1-4: The bassoon plays a sustained note (F#) while the strings play eighth-note patterns. Measures 5-6: The bassoon plays eighth notes (F# and E) while the strings play eighth-note patterns. Measures 7-8: The bassoon plays eighth notes (E and D) while the strings play eighth-note patterns. Measures 9-10: The bassoon plays eighth notes (D and C) while the strings play eighth-note patterns. Measures 11-12: The bassoon plays eighth notes (C and B) while the strings play eighth-note patterns.

BUSSLER.

A musical score for piano, featuring a treble clef staff and a time signature of 6/4. The score consists of four measures of music, numbered 32 through 35. The notes are primarily eighth notes, with some sixteenth-note patterns and rests.

A musical score page showing two measures of music. The key signature is A major (three sharps). The first measure starts with a half note followed by a eighth-note triplet pattern. The second measure continues with a eighth-note triplet pattern.

HUGOUNENC.

33. VII⁰_c VII⁰_b VII⁰_b VII⁰ VI II V_b V_{7b}

Chapter XII.

34. II_{7d} I

35. VI_b II_{7d} V_{7b} I VI_{7b} II_{7d} V_{7b}
IV II II₇ I_c V III_b V₇ +

36. VI₇ II_{7c}

37. Folk Song.
II_{7d} I₇ +

Chapter XIII.

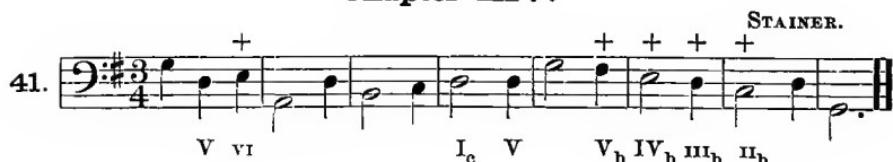
38. 

39. 

40. 

Chapter XIV.

STAINER.

41. 

BUSSLER.

42. 

+ + + + + +

V III I VI IV II

In Nos. 43 and 44, the crosses mark the by-tones.

+ + + +

43.

VI

+ + + + + +

+ + + + + +

44.

+ + + +

Chapter XV.

45.

V_{7d.} V VI

IV_b V₇ VI

+

Folk Song.

46.

V_{7e} I_b

FINE.

D.C.

Double Chant.

47.

Chapter XVI.

48.

$\text{IV}_c \quad \text{I} \quad \text{IV}_b \text{ V}$

$\text{V}_{7d} \text{ I}_b \quad \text{V}_{7c}$

FAISST.

49.

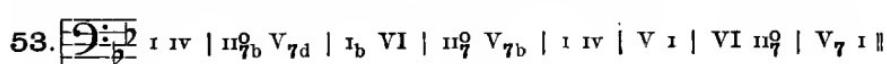
50.

Chapter XVII.

ZELTER.

51. 

52. 

53. 

Chapter XVIII.

HÄNDEL. (Arr.)

54. 

55. 

$\text{IV}_c \quad \text{VI}_7 \quad \text{II}^{\text{O}}_7\text{c} \quad \text{V}_{7,11} \quad \text{V}_7 \quad \text{I} \quad \text{V}_{7,13} \quad \text{II}^{\text{O}}_7\text{c} \quad \text{V}_7$

56.

Chapter XIX.

STAINER.

57.

$\text{V}_{7c} \quad \text{A: } \text{V}_{7d} \quad \text{I}_b \quad \text{V}_7$

$f\sharp: \text{V}_{7c} \quad \text{I} \quad \text{E: } \text{V}_b \quad \text{I} \quad \text{L}_{7b} \quad \text{IV} \quad \text{V}_7$

Hymn-Tune.

58.

$\text{V}_b \quad \text{VI} \quad \text{G: I}$

$\text{D: II} \quad \text{I}_c \quad \text{V} \quad \text{I}$

$\text{V}_7 \quad \text{I}_c \quad \text{V}_7 \quad \text{I}_c \quad \text{V}_7 \quad \text{I}_c \quad \text{V}_7 \quad \text{V}_7$

59.

E b:

bb:

Ab:

Dbb:

Ad:

GUILMANT.

60.

Bb: V_{7d}

g: I_c

V_{7c}

c: V_{7b} *g:* I_c

Eb: I I_{b7d} IV_b IV_{b7d} *Bb:* V *Eb:* V_{7d}

I_{b7d}

Chapter XX.

61. I V_{7,9} V₇ | III_b V₇ | I IV_c II_{7d+} | I I |

III II_b II_{7b} | II_{7b} V_{7d} | I_b I_b | II₇ V_{7c} | I — ||

62. IV_c VII_{7b}+ I_{7b+} III VI I_c

V_{7d} I_{7b} II_{7b} V_{7d} VI II_{7c} |

63. I I+ IV IV+ | II II+ V— | III III₇ VI VI_{7d} | II_b V₇ I— ||

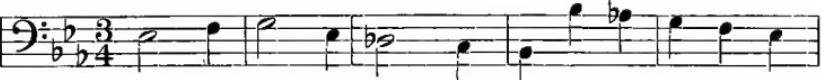
64. { G:2 F:2 | }

{ G:2 F:2 | }

Chapter XXI.

N. B.

PROUT.

65. 

I_{b7d} II_{7e} I_c II_{7d}



V_{7b} II II_{7b} V_{7d} I_{b7d}



I_{b7e} II_{7b} I_c II_{7c} V_{7b} IV

66. 

II₇ V₇ a: 1 V_{7b} C: V



II₇ V₇ I_c I_c V I_c II_b V_{7d} I_b II₇ V₇

67. 

VII₇ I VI_{b7c} V_{7c} IV₇

#IV₇⁰ I_c



VII₇ I VI_{b7c} V_{7c} IV₇

+

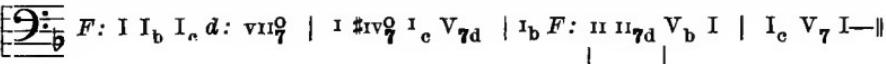


VII₇ I VI_{b7c} V_{7c} IV₇

Chapter XXII.

68. 

a: $\text{IV}_b \# \text{IV}_{7b} \text{ I}_c \text{ I}_c | \text{V}_{7,13} \text{ V}_7 \text{ I} - |$



69. 

D: I_c



G: V₇ *b: I_c*



G: V_{7,13}

70. 

I_{7b} IV II_{7c} IV_b I_c



VI IV_b #IV_b V V₇ VI IV_b #IV_b V V a: #IV_b V IV_b #IV_b

V d: vii₇⁰ V_{7b} C: vii_{b7}⁰ V_{7b} I I_{b7} d: V_b i I_{b7d} IV_b #iv_b⁰ V V₇

VI iv_b[#] #iv_b⁰ V V₇ VI iv_b[#] #iv_b⁰ V #iv_b⁰ V #iv_b⁰ V

V₇ VI #III₇⁰ IV I_e #IV_{7b}⁰ I_c I V₇

VI IV_b II_{7b} I_c V₇ I

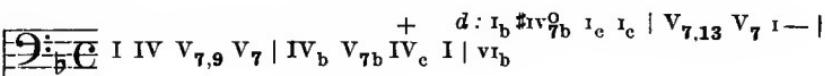
Chapter XXIII.

71.

71.

LISZT. (Arr.)

72. 

73. 

Chapter XXIV.

74. 

75. 

76. 



76.

MENDELSSOHN.
b.

77.

a.—Passing tones. *b.*—Appoggiatura. *c.*—Changing tone.

Chapter XXV.

78.

79. *Allegro.*

IV II

Exercise 80, arranged from Chauvet, illustrates a pedal in the upper voice, also a double pedal. Measures 9–14 are to be written in five voices. The distance between soprano and alto is in several places greater than an octave.

80.

81.

STAINER.

G : V_b

C : IV

82.

The following from Bussler shows a number of suspensions from below. In the last chord but one we have an example of the suspension of three tones at once. This might also be called an anticipatory tone in the bass.

83.

V_{7c} V_{7b} I_b IV

I_b $viio_b$ II_b

BACH. (Arr.)

84.

Repeat the bass of the first eight measures.

